



SC-6



marantz

Model SC-6

Stereo Console Amplifier

MARANTZ DESIGN AND SERVICE

Using superior design and selected high grade components, MARANTZ Company has created the ultimate in stereo sound. Only original MARANTZ parts can insure that your MARANTZ product will continue to perform to the specifications for which it is famous.

Parts for your MARANTZ stereo are generally available within 72 hours throughout the nation via a toll-free line to our National Parts Depot in California. The sales professionals who take your call immediately refer to their own desk top computer terminal and can quickly determine the availability and price information you require. If for some reason, your order should exceed our available stock, we usually can instantly provide an alternate replacement part or current delivery information. When the order is placed and confirmed, the computer simultaneously generates "hard copy" orders at the distribution center. As hard copies come directly from the computer to the national parts depot, your requested stock is assembled and prepared for shipment and placed on the first available carrier for delivery to you.

ORDERING PARTS

Phone orders will eliminate mail delays, and we encourage the use of this method. If you order by mail, use MARANTZ parts order forms which are available from our National Parts Depot located at the following address:

SUPERSCOPE NATIONAL PARTS DEPARTMENT
20525 Nordhoff Street
Chatsworth, California 91311
Phone: 1-800-423-5108
1-213-998-9333

The following information must be supplied to eliminate delays in processing your order:

1. Complete address.
2. Complete part numbers.
3. Complete description of parts.
4. Model number for which part is required (indicate MARANTZ).
5. Account number (for account customers only).

Direct consumers will be provided with the current retail price quotation on available parts in order to advise them of the cost of the parts and shipping.

OVERSEAS PARTS ORDERING

Parts may also be ordered from the following overseas addresses:

CANADA

Superscope Canada, Ltd.
3710 Nashua Drive
Mississauga
Ontario, Canada L4V1M5

AUSTRALIA

Superscope (Australasia) Pty., Ltd.
32 Cross Street (P.O. Box 604)
Brookvale 2100 N.S.W.
Australia

JAPAN

Marantz Japan, Inc.
3622 Kamitsuruma
Sagamihara Shi
Kanagawa, Japan

EUROPE

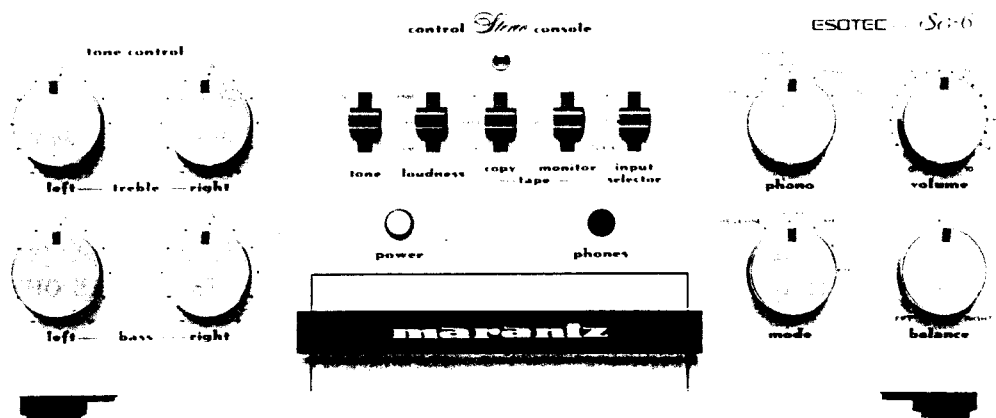
Marantz Europe, S.A.
Avenue Leopold III, 2
7120 Perennes-Lez-Binche
Belgium

Marantz France
Rue Louis Armand 9
92600 Asnieres
Hauts-de-Seine
France

Marantz Audio U.K. Ltd.
London Road, 203
Staines
Middlesex
England

Marantz GmbH
Max-Planck-Strasse 22
D-6072 Dreieich 1
West Germany

All of the above locations are fully equipped to take care of your total service needs. Because various countries have differing configuration requirements, it is necessary that you contact the service facility in your particular country. In the event that there is no service location listed for your country, please contact the nearest facility for the necessary assistance.



◇ 特 長

■MCヘッドアンプ(13石構成)

初段はNPN超ローノイズトランジスタ4本を並列に組合せたものと、PNP超ローノイズトランジスタ4本を組合せたものとでプッシュプル構成とし、さらに2段目の増巾段もプッシュプル構成とし、出力段は十分に電流を流したSEPP構成の片チャンネル当り13石ものトランジスタを使用した本格的なMCヘッドアンプです。

特にS/Nを改善するため、フィードバック回路のインピーダンスを徹底的に小さくしています。定格入力 $220\mu\text{V}$ で、電圧利得は10倍(20dB)となっています。

■PHONOアンプ(11石構成)

このPHONOアンプはTIM歪の低減と高S/Nを実現するために、マランツ独特の11石構成の完全全段プッシュプル回路にしてあります。

初段はNチャンネル、Pチャンネルの超ローノイズ、ハイGmのFETをプッシュプルに組合わせ、さらにカスコードブートストラップ回路を使用し入力段のインピーダンス変化による特性悪化を防止しています。

次段は段間エミッターフォロアーによるバッファアンプを通り、2段目プッシュプル電圧増巾段に入ります。

さらに出力段はどのような負荷にでも十分にドライブすることのできるSEPP回路とし、S/Nを改善するためのイコライザ素子のインピーダンスも従来のものに比べ十分低くし、定格入力時のS/Nも90dBを達成しています。

また、イコライザ素子には誤差1%以内の金属被膜抵抗と、2%以内のポリプロピレンコンデンサを使用し、20Hz~20kHz以内でのRIAA偏差を0.2dB以内に抑えています。

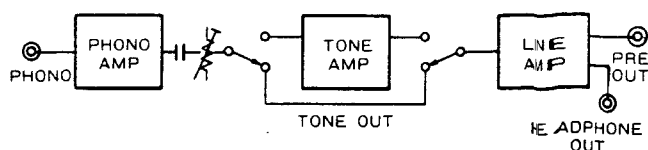
なお、PHONO1のポジションではカートリッジの最適負荷を選ぶため、カートリッジロードを27k Ω 、47k Ω 、100k Ω に切換えることができます。

また、電源ON-OFF時の不快なノイズを取り除くためにフオノアンプ出力にミュートングリレーを挿入し、万全を期しています。

さらに、ターンテーブルのゴロやフラッターを取り除くために、出力部にはEQ Subsonic フィルターを入れています。

■TONEスイッチ

PHONOアンプの出力を直接プリアンプに送り込むことによって、段間のカップリングコンデンサを1つだけにすることができます。



このスイッチを操作することによってTONE IN-TONE OUTの動作状態を選ぶことができます。なお、各動作でのゲインおよび入力感度の変化はありません。

■ラインアンプ(Line Amp)

この Line Amp は TIM 歪の低減と高 S/N を実現するためにマランツ独特の15石構成の全段プッシュプル回路で CLASS A アンプとしてあります。

入力段はペアー特性の良いデュアル FET によるソースフォロアーを使用し、入力段のインピーダンス変化による特性悪化を防いでいます。インピーダンスを下げた信号はデュアルトランジスタによる差動アンプで増巾されます。

差動出力の片側は位相反転し、それぞれの差動出力は段間エミッタフォロアーのバッファアンプを通して2段目のプッシュプル増巾段に入ります。

電力増巾段は、新開発のスーパーハイフ(200~250MHz)のパワートランジスタによる2段ダーリントン方式にしています。動作特性は純クラスAのため、歪の少ない波形伝送とTIM歪の低減を徹底的に進めた回路方式を採用し、Headphoneも同時にCLASS Aでのドライブを可能にしています。

□調整方法

■Line Amp アイドリング電流調整

1. デジタルポルトメーターを下記の端子に接続します。

L ch QL35、QL37の各エミッター間(RL61、RL63の両端)

R ch QL36、QL38の各エミッター間(RL62、RL64の両端)

2. デジタルポルトメーターの指示が $570\text{mV} \pm 10\text{mV}$ (61mA)になるように、RL45(L ch)、RL46(R ch)を各々調整します。

(注)この調整は、電源スイッチをONにしてから30秒経過した後に調整してください。

■サービスに必要な測定器

項 目	使 用 法
歪 率 計	アンプ出力の歪と電圧を測定する。
低 周 波 発 振 器	正弦波および矩形波の信号源として使用する。
オ ッ シ ロ ス コ ー プ	波形分析およびトラブル・シューティングに使用する。
V T V M	電圧および抵抗値の測定に使用する。
交 流 ワ ッ ト ・ メ ー タ ー	アンプの一次側消費電力をモニターする。
電 源 電 圧 計	アンプの一次側電源電圧をモニターする。
ス ラ イ ダ ッ ク (0~140VAC, 10A)	アンプの一次側電圧を調節する。
シ ョ ー ト 用 プ ラ グ	雑音を拾わないようにアンプ入力を短絡するのに使用する。
出 力 負 荷 抵 抗 ($8\Omega \pm 0.5\%$, 250W)	アンプの出力に 8Ω の負荷を与える。
出 力 負 荷 抵 抗 ($4\Omega \pm 0.5\%$, 250W)	アンプの出力に 4Ω の負荷を与える。

□規 格

全高調波歪率(20Hz~20kHz) 0.005%

混変調歪率 0.004%

周波数特性(20Hz~20kHz)+0, -0.2dB

(5Hz~100kHz)+0, -1dB

入力感度およびインピーダンス

フォノ1(MM) 2.5mV/27k Ω /47k Ω /100k Ω

フォノ1(MC) 220 μ V/75 Ω

フォノ2(MM) 2.2mV/47k Ω

高レベル 150mV/40k Ω

定格出力およびインピーダンス(PRE OUT) 1.5V/220 Ω

(TAPE OUT) 150mV/600 Ω

RIAA 偏差(20Hz~20kHz) $\pm 0.2\text{dB}$

入力等化雑音(フォノ・IHF-A) 0.24 μ V

S/N(IHF-A ネットワーク)フォノ MM 86dB

フォノ MC 68dB

テープ・チューナー・AUX 110dB

フォノ最大許容入力・フォノ MM 220mV.1kHz

フォノ MC 20mV.1kHz

トーンコントロール特性(低域 100Hz) $\pm 8\text{dB}$

(高域 10kHz) $\pm 8\text{dB}$

その他

電 源 100V 50/60Hz

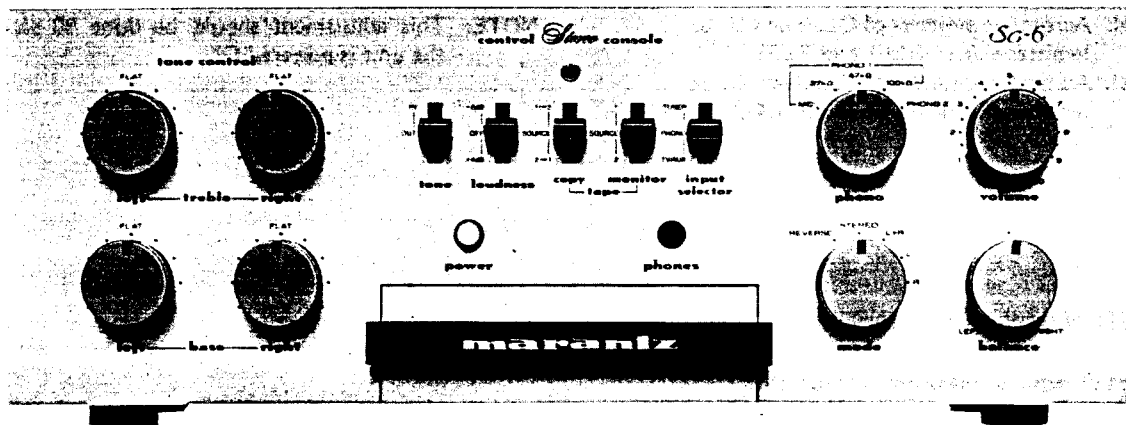
消費電力(電気用品取締法) 35W

外形寸法(幅×高さ×奥行き) 416×146×244mm

重 量(セット単体) 6.5kg

本機の規格および外観は改良のため予告なく変更することがありますが、ご了承ください。

MARANTZ MODEL Sc-6 STEREO CONSOLE AMPLIFIER



FEATURES

- **MC head amplifier**

The first stage uses 4 super-low noise NPN transistors and 4 super-low noise PNP transistors connected in parallel to form a push-pull circuit. The second stage is also a push-pull circuit. The output stage is a high gain SEPP amplifier. Totally, 13 transistors are used for a channel. The feedback circuit has very low impedance, thus improving the S/N. With this design, this MC head amplifier provides a high voltage gain (20 dB or 10 times) at a rated input of 220 μ V.

- **PHONO amplifier**

The PHONO amplifier is a unique Marantz full-stage push-pull circuit using 11 transistors that ensures low TIM distortion and a high S/N.

The first stage uses super-low noise, high Gm FETs in push-pull connection (N and P channels) and a cascode current mirror circuit to prevent the deterioration of the characteristics due to changes in input impedance. The PHONO signal is fed through the emitter follower buffer amplifier to the push-pull voltage amplifier in the second stage.

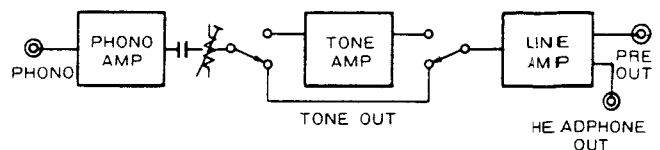
The output stage is an SEPP circuit which has sufficient driving ability. The equalizer circuit has a very low impedance so that the S/N is a high 90 dB at the rated input. This circuit uses high quality metallic film resistors ($\pm 1\%$) and polypropylene capacitors ($\pm 2\%$) to reduce the deviation from the RIAA characteristic to less 0.2 dB at 20 Hz ~ 20 kHz.

Optimum cartridge load can be selected between 27 k Ω , 47 k Ω and 100 k Ω by using the PHONO switch on the front panel. The input stage includes a muting relay to eliminate the shock noise which is normally generated when the power is turned on and off.

The output stage is also provided with an EQ subsonic filter to eliminate wow and flutter generated by the turntable.

- **TONE switch**

By using this switch, the output of the PHONO amplifier, passing through the coupling capacitor, is directly fed to the main amplifier without affecting the gain and input sensitivity, thus the line amplifier operates in the TONE IN/OUT mode.



- **LINE amplifier**

The Class line amplifier is a unique Marantz full-stage push-pull circuit using 15 transistors that ensures low TIM distortion and a high S/N. This fullstage DC amplifier employs a unique Marantz circuit design to minimize TIM distortion and a DC servo circuit to eliminate DC drift.

The input stage uses a matched pair of dual FETs as a source follower amplifier to prevent the deterioration of the characteristics due to changes in input impedance. The low impedance signal is amplified by the dual transistor differential amplifier with an active load balancing circuit. The differential output is fed through the emitter follower buffer amplifier to the push-pull amplifier in the next stage.

The power amplifier stage uses newly developed super high f_T (70 ~ 90 MHz) power transistors connected in parallel to form a 2 stage Darlington circuit. The new circuitry with pure Class A operation completely eliminates switching and TIM distortion. Headphones are also driven in Class A.

ADJUSTMENT

- **Line amplifier idling current adjustment**

1. Connect a digital voltmeter to the following points:

L channel: Across the emitters of QL35 and QL37
(emitter side of RL61 and RL63).

R channel: Across the emitters of QL36 and QL38
(emitter side of RL62 and RL64).

2. Adjust RL45 (L ch.) and RL46 (R ch.) until the digital voltmeter reads 570 ± 10 mV (61 mA) for each channel.

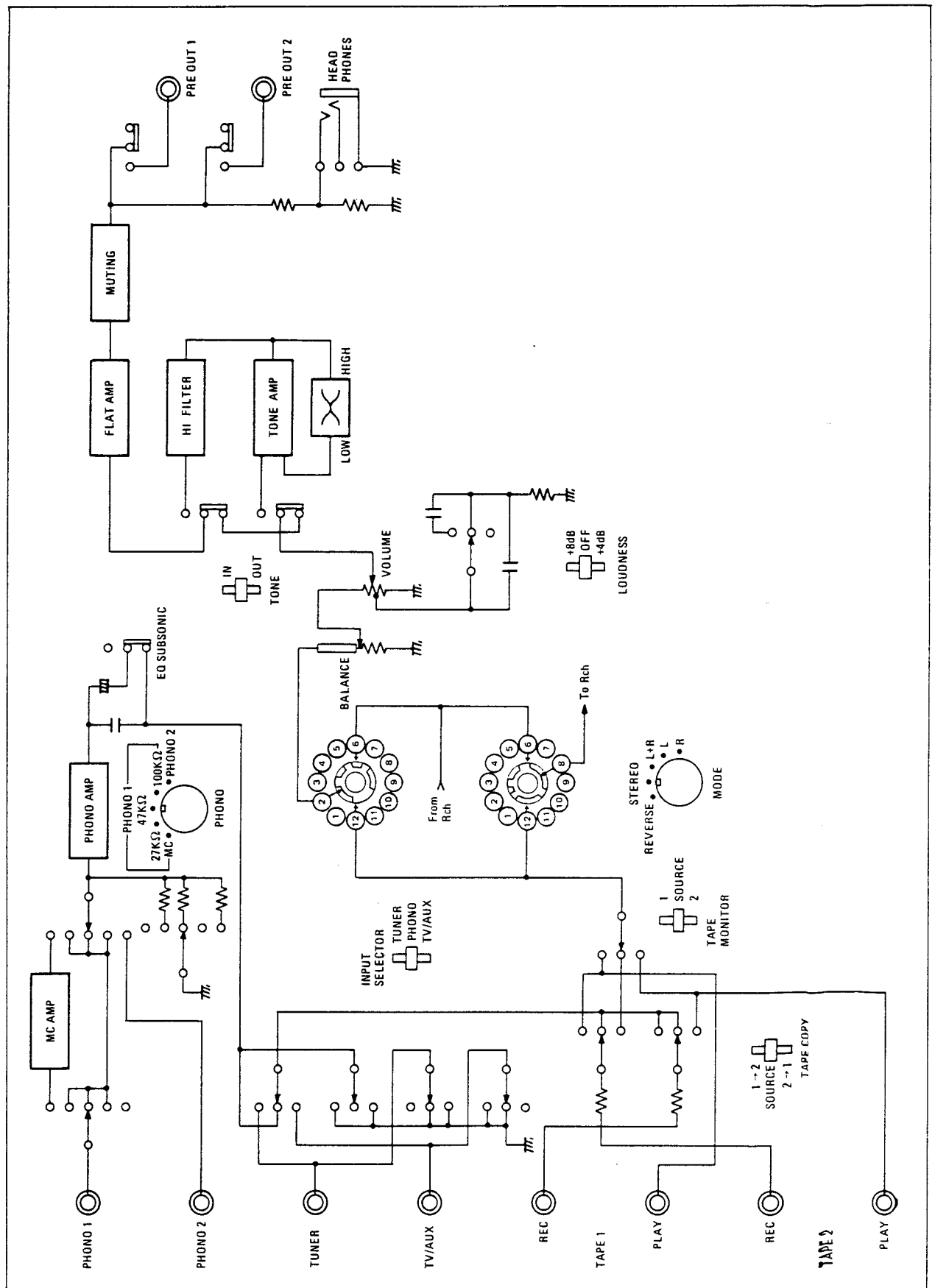
NOTE: This adjustment should be done 30 seconds after the unit is powered ON.

REQUIRED MEASURING INSTRUMENTS

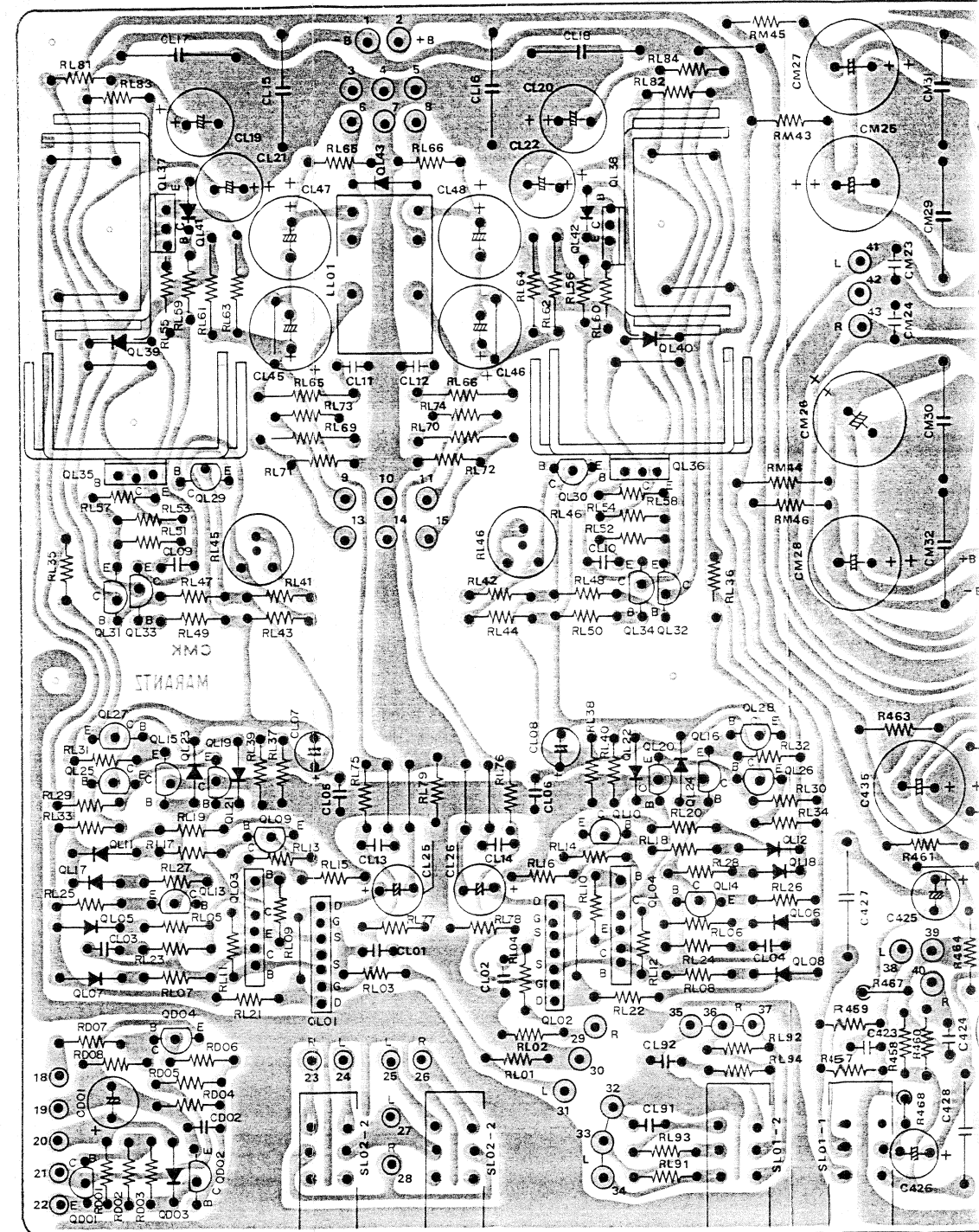
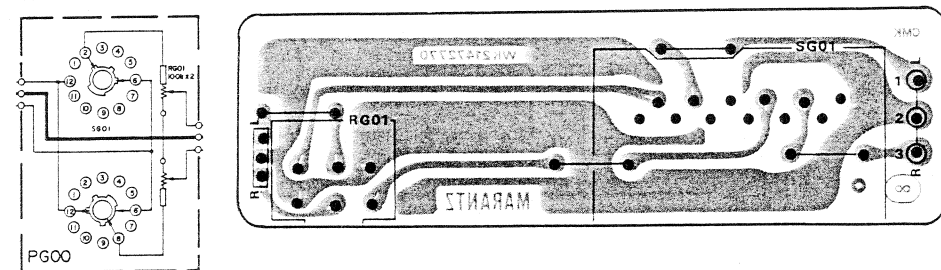
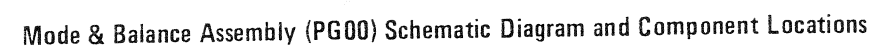
Table 1. List of required measuring instruments

Item	Purpose
Distortion meter	Measures distortion in amplifier output and its voltage.
Audio frequency generator	Signal source for audio-frequency sine and square waves.
Oscilloscope	Waveform analysis and troubleshooting.
V T V M	Voltage and resistance measurement.
AC power meter	Monitors amplifier's primary power consumption.
Voltmeter	Monitors amplifier's primary supply voltage.
Slidac (0 ~ 140V AC, 10A)	Adjusts amplifier's primary supply voltage.
Shorting plug	Used to short input jacks for noise prevention.
Output load resistor ($8\Omega \pm 0.5\%$, 250W)	Load to amplifier output (8Ω).
Output load resistor ($4\Omega \pm 0.5\%$, 250W)	Load to amplifier output (4Ω).

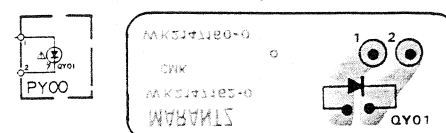
□ ブロックダイアグラム



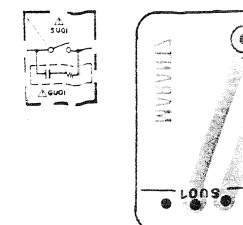
Pre-Amp. Assembly (P400) Schematic Diagram and Component Locations

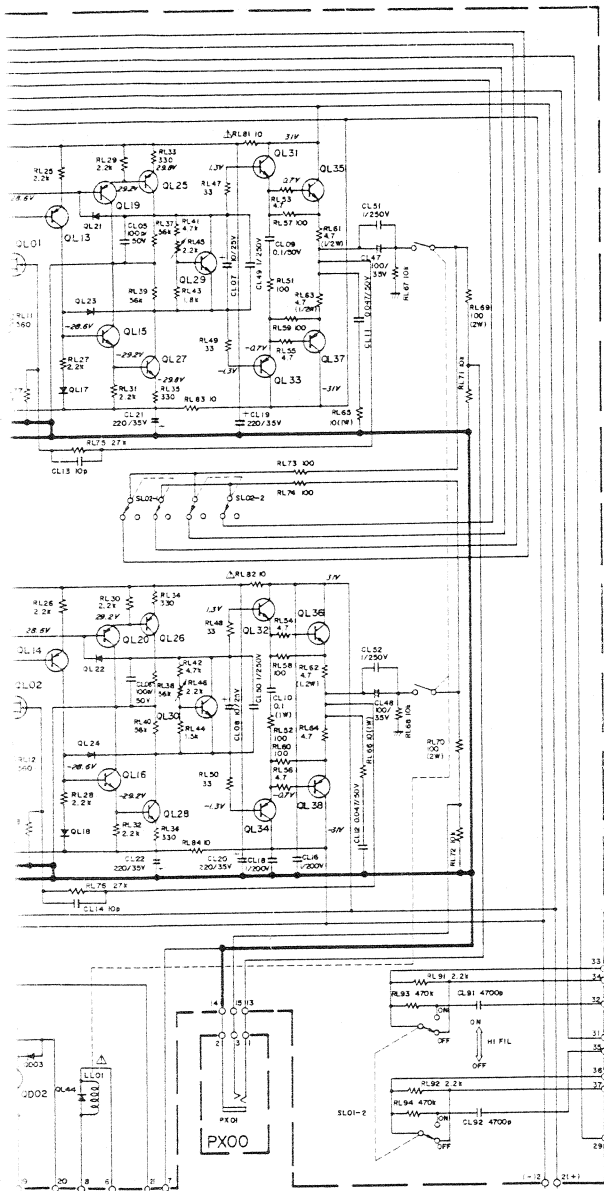


Power L.E.D. Assembly (PY00) Schematic Diagram and Component Locations

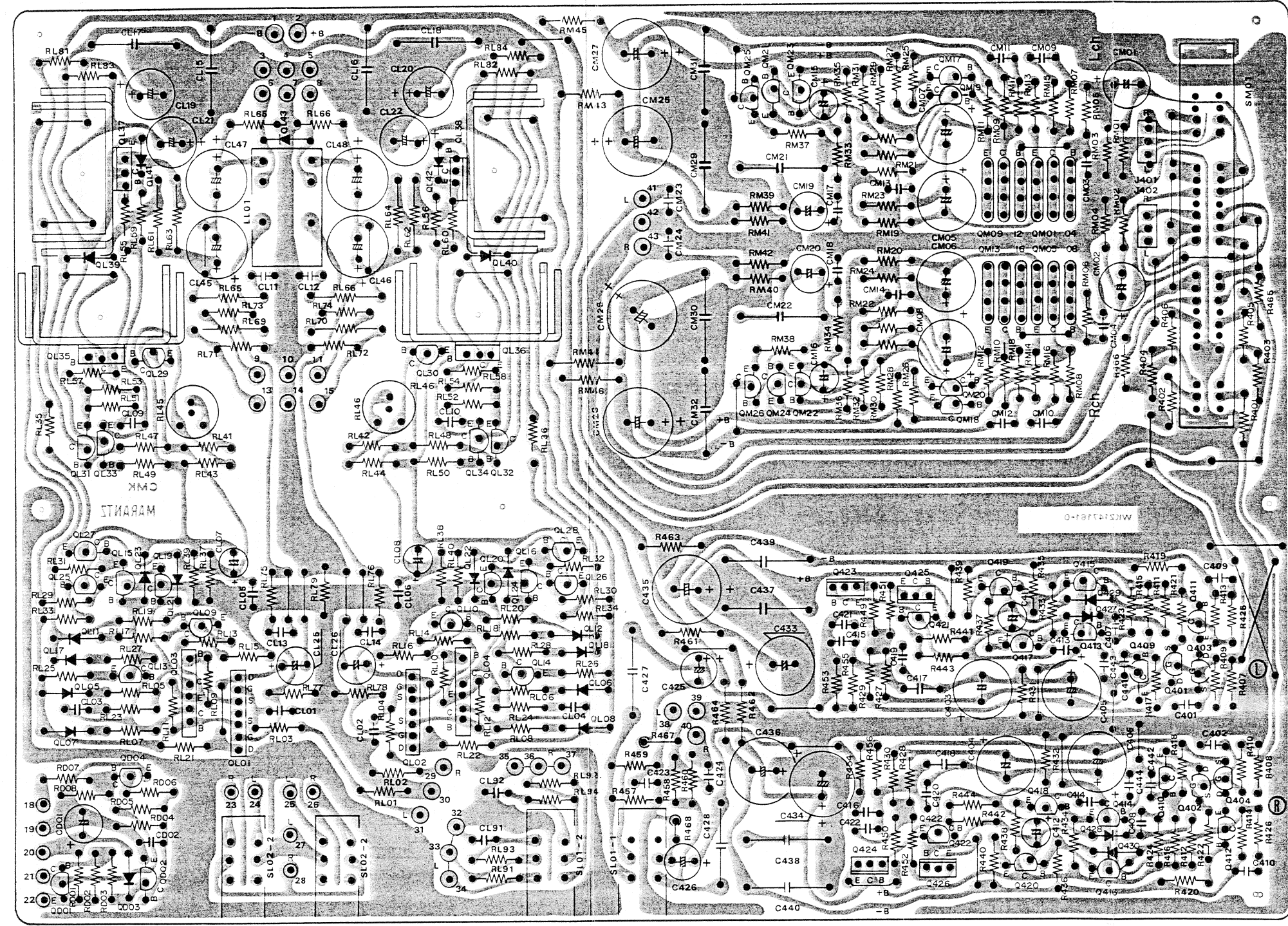
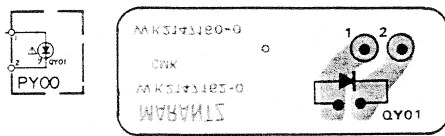


Power Switch Assembly

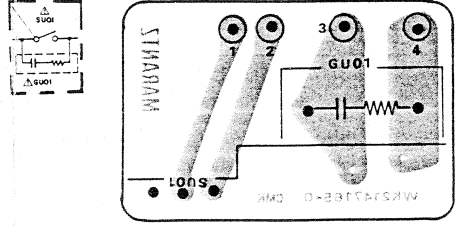




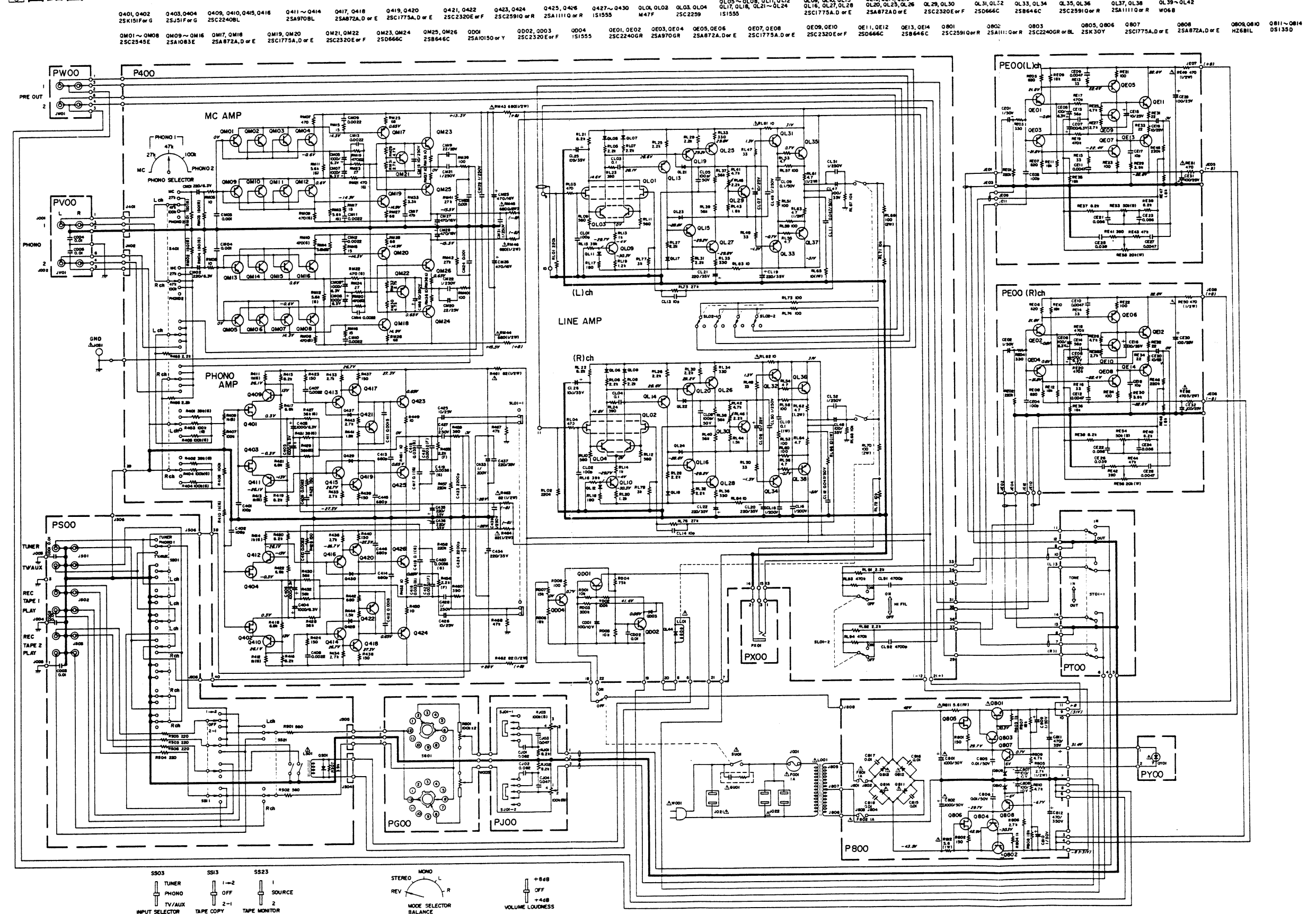
Power L.E.D. Assembly (PY00) Schematic Diagram and Component Locations



Power Switch Assembly (PU00) Schematic Diagram and Component Locations



回路図



(安全上の注意: △が付いている部品は、安全上重要な部品です。必ず指定されている部品番号の部品を使用してください。)

本機の回路は改良のため予告なく変更することがありますが、ご了承ください。

Model Sc-6 (F)

REF. DESIG.	Q'TY	PART NO.	DESCRIPTION	REF. DESIG.	Q'TY	PART NO.	DESCRIPTION
001E	1	2147160210	Bracket, Rear Panel	001E	1	2147160230	Bracket, Rear Panel
008E	1	62030039W0	Lug	008E	1	62040029W0	Lug
				012E	1	51280308U0	B.H. Tapped Screw B3 x 8
001S	1	2147801010	Packing Case	001S	1	2147801040	Packing Case
005S	1	2864804010	Sleeve				
007S	1	2147851110	Instruction	007S	1	2147851310	Instruction
010S	1	9631000110	Guarantee Card				
012S	2	9526019040	Serial No. Card	012S	2	9526019060	Serial No. Card
013S	1	2976813020	Envelope				
014S	1	2976851040	Instruction				
018S	1	9650000030	S. Station Card				
021S	1	ZD01200080	Connective Cord	021S	1	ZD01500160	Connective Cord
023S	1	2461107010	Sheet				
				024S	1	2147863010	Hang Tag
				030S	1	2731821010	Silicagel
				031S	1	2147856010	Circuit Diagram
				032S	1	2147851020	Spec Flysheet
				001R	1	2932861010	Label
				002R	1	2578861010	Label
F001	1	FS10100090	Fuse 1A 250V	F001	1	FS10050080	Fuse 0.5A 250V
GU01	1	BF10400030	Cap. Comp. 0.1μF + 120Ω	GU01	1	DF17223800	Film 0.01μF 1000V
				J057	1	YQ01000020	Shote Plug
				J058	1	YQ01000020	Shote Plug
				J091	1	BY05080010	Voltage Selector
L001	1	TS16611120	Power Transformer	L001	1	TS16611130	Power Transformer
W001	1	YC01400180	A.C. Power Cord	W001	1	YC01800220	A.C. Power Cord
CL16	1	DF16105530	Film 1μF ±10%				
CL18	1	DF16105530	Film 1μF ±10%				
CM21	1	DF16105510	Film 1μF ±10%				
CM22	1	DF16105510	Film 1μF ±10%				
CM29	1	DF16105510	Film 1μF ±10%				
CM31	1	DF16105510	Film 1μF ±10%				
C407	1	DF16222300	Film 2200pF ±10%	C407	1	DF15222300	Film 2200pF ±5%
C408	1	DF16222300	Film 2200pF ±10%	C408	1	DF15222300	Film 2200pF ±5%
C409	1	DF16222300	Film 2200pF ±10%	C409	1	DF15222300	Film 2200pF ±5%
C410	1	DF16222300	Film 2200pF ±10%	C410	1	DF15222300	Film 2200pF ±5%
C437	1	DF16105530	Film 1μF ±10%				
C438	1	DF16105510	Film 1μF ±10%				
C439	1	DF16105530	Film 1μF ±10%				
RL43	1	GD05182140	1.8KΩ 1/4W	RL43	1	GD05152140	1.5KΩ 1/4W
RL44	1	GD05182140	1.8KΩ 1/4W	RL44	1	GD05152140	1.5KΩ 1/4W
RL71	1	GA05101010	100Ω 1/4W	RL71	1	GD05103140	10KΩ 1/4W
RL72	1	GA05101010	100Ω 1/4W	RL72	1	GD05103140	10KΩ 1/4W
R409	1	GM21410000	100Ω ±2%	R409	1	GM21410010	1KΩ 1/4W
R410	1	GM21410000	100Ω ±2%	R410	1	GM21410010	1KΩ 1/4W
SL01	1	SP02020260	Push Switch	SL01	1	SP02020490	Push Switch
SL02	1	SP02020260	Push Switch	SL02	1	SP02020490	Push Switch
R811	1	GG05100120	10Ω 1/2W	R811	1	GA05056010	5.6Ω 1W
R812	1	GG05100120	10Ω 1/2W	R812	1	GA05056010	5.6Ω 1W
CJ01	1	DF15823300	Film 0.82μF ±5%	CJ01	1	DF15683300	Film 0.068μF ±5%
CJ02	1	DF15823300	Film 0.82μF ±5%	CJ02	1	DF15683300	Film 0.068μF ±5%
JX01	1	YJ01001340	Jack, Head Phone	JX01	1	YJ01001400	Jack, Head Phone

Model Sc-6 (E)

Model Sc-6 (F)

Model Sc-6 (E)

REF. DESIG.	Q'TY	PART NO.	DESCRIPTION	REF. DESIG.	Q'TY	PART NO.	DESCRIPTION
				P400	1	W<21471610	P.W. Board, Pre Amp
					1	21471610	P.W. Board Assembly
				P800	1	W<21472720	P.W. Board, Power Supply
					1	21472720	P.W. Board Assembly
				PE01	1	W<21472730	P.W. Board, Tone Amp (L)
					1	21472730	P.W. Board Assembly
				PE02	1	W<21472740	P.W. Board, Tone Amp (R)
					1	21472740	P.W. Board Assembly
				PG00	1	W<21472770	P.W. Board, Mode SW
					1	21472770	P.W. Board Assembly
				PJ00	1	W<21471630	P.W. Board, Volume
					1	21471630	P.W. Board Assembly
				PS01	1	W<21472710	P.W. Board, Input Select
					1	21472710	P.W. Board Assembly
				PT00	1	W<21472750	P.W. Board, Tone SW
					1	21472750	P.W. Board Assembly
				PU00	1	W<21471650	P.W. Board, Power SW
					1	21471650	P.W. Board Assembly

TECHNICAL SPECIFICATIONS

AUDIO SECTION

Total Harmonic Distortion (20 Hz ~ 20 kHz) 0.005%

I.M. Distortion 0.004%

Frequency Response

20 Hz ~ 20 kHz +0, -0.2 dB

5 Hz ~ 100 kHz +0, -1 dB

Input Sensitivity & Impedance

Phono 1 (MM) 2.5 mV/27 kΩ/47 kΩ/100 kΩ

Phono 1 (MC) 220 μV/75Ω

Phono 2 (MM) 2.2 mV/47 kΩ

Aux 150 mV/40 kΩ

Output Voltage & Impedance

Pre Out 1.5V/220Ω

Tape Out 150 mV/600Ω

RIAA Deviation (20 Hz ~ 20 kHz) ±0.2 dB

Phono Equivalent Input Noise (IHF-A Network) 0.24 μV

Signal-to-Noise Ratio (IHF-A Network)

Phono (MM) 86 dB

Phono (MC) 68 dB

Tape/Tuner/Aux 110 dB

Phono Maximum Input Voltage

MM 220 mV/1 kHz

MC 20 mV/1 kHz

Tone Control Characteristics

Bass: 100 Hz ±8 dB

Treble: 10 kHz ±8 dB

GENERAL

Power Requirements 110/120/220/240V AC, 50/60 Hz

Power Consumption 35W

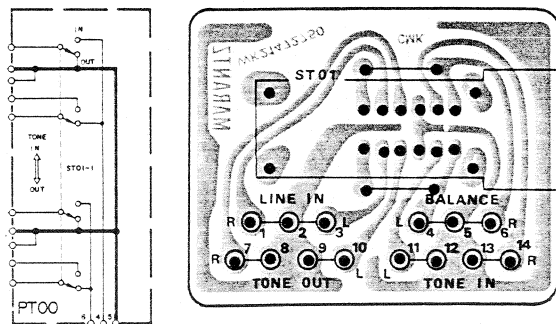
Dimensions (W x H x D) 416 mm x 16 mm x 250 mm

Weight (Unit alone) 14.9 lbs (6.5 kg)

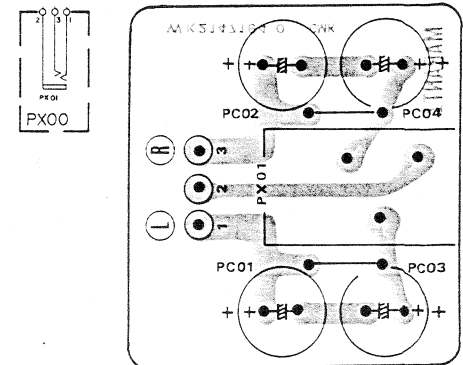
Model Sc-6



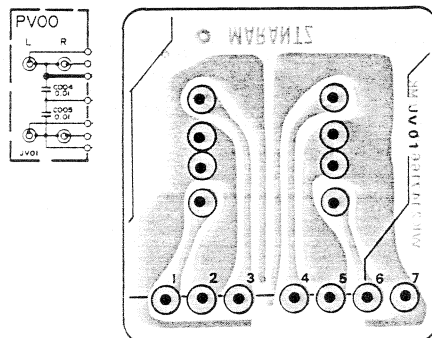
Tone Switch Assembly (PT00)
Schematic Diagram and Component Locations



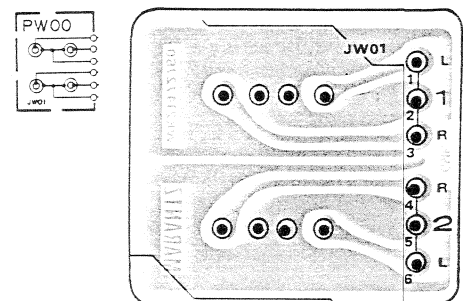
Head Phone Assembly (PX00)
Schematic Diagram and Component Locations



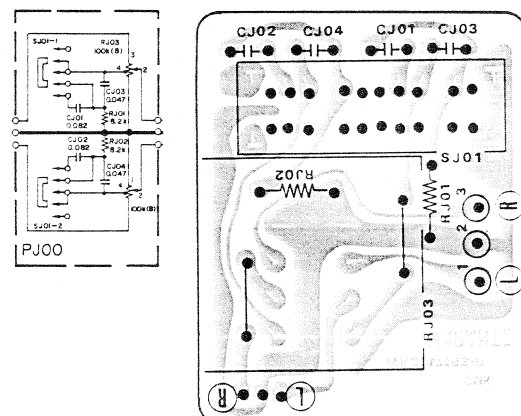
Phone 1, 2 Assembly (PV00)
Schematic Diagram and Component Locations



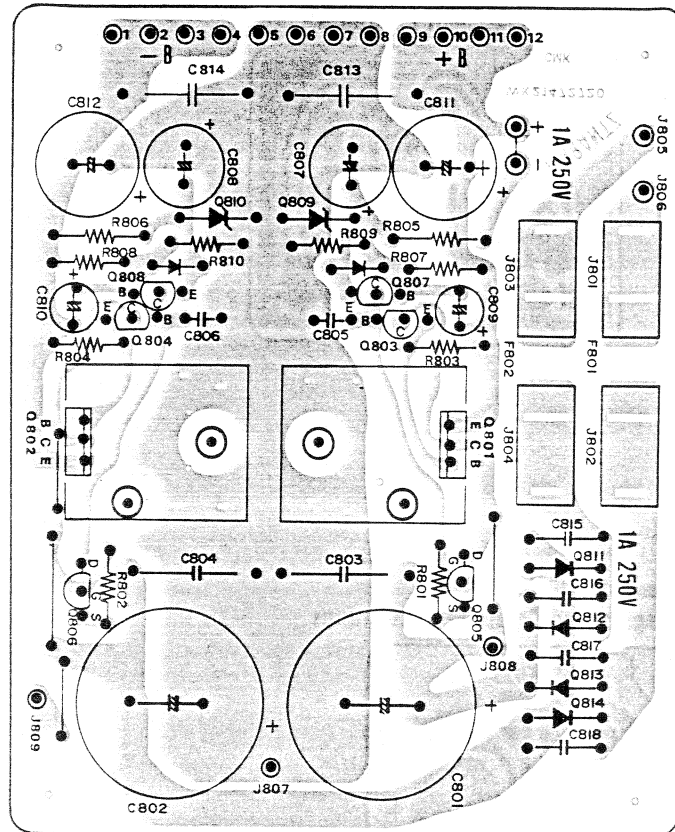
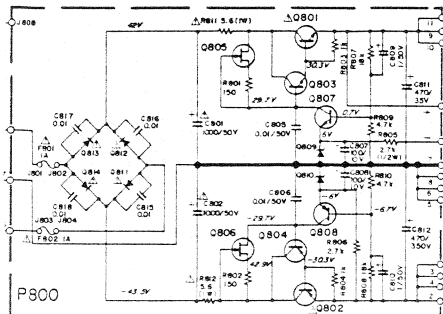
Pre-Out Assembly (PW00)
Schematic Diagram and Component Locations



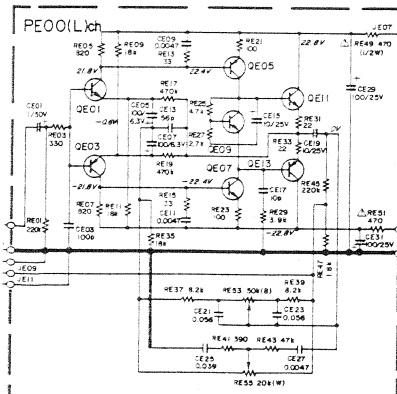
Volume & Loudness Assembly (PJ00)
Schematic Diagram and Component Locations



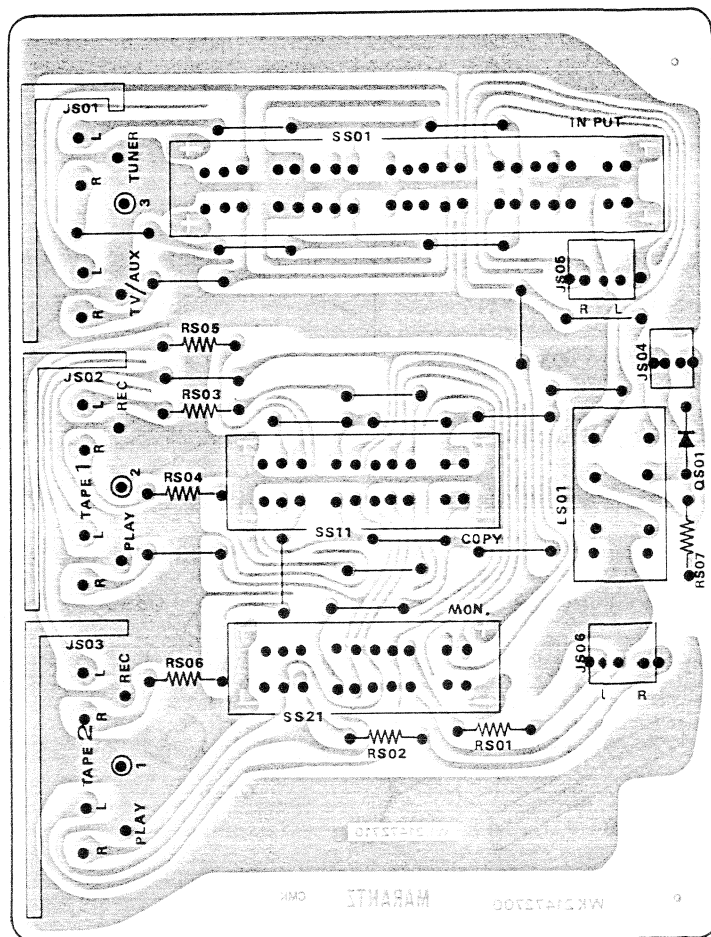
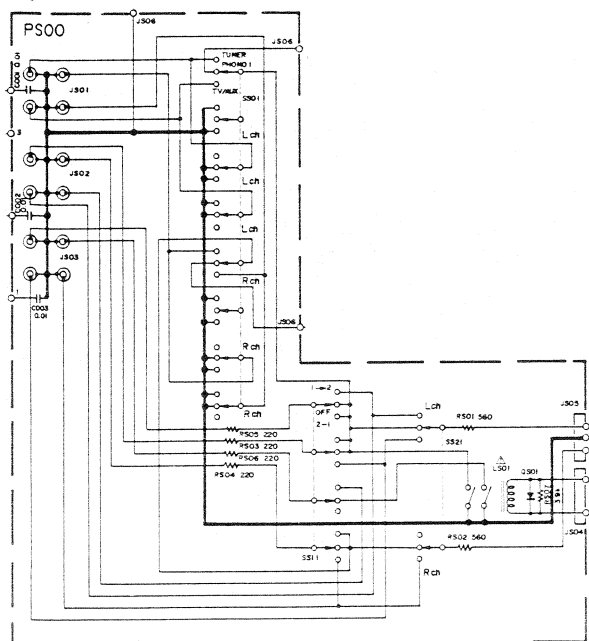
Power Supply Assembly (P800) Schematic Diagram and Component Locations



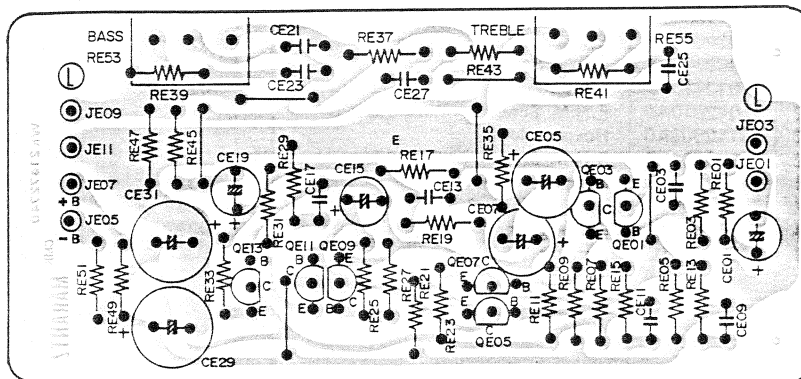
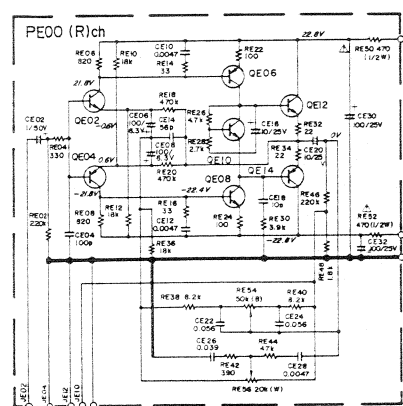
Tone Amp. (L-Ch) Assembly (PE00) Schematic Diagram and Component Locations



Input Selector Assembly (PS00) Schematic Diagram and Component Locations

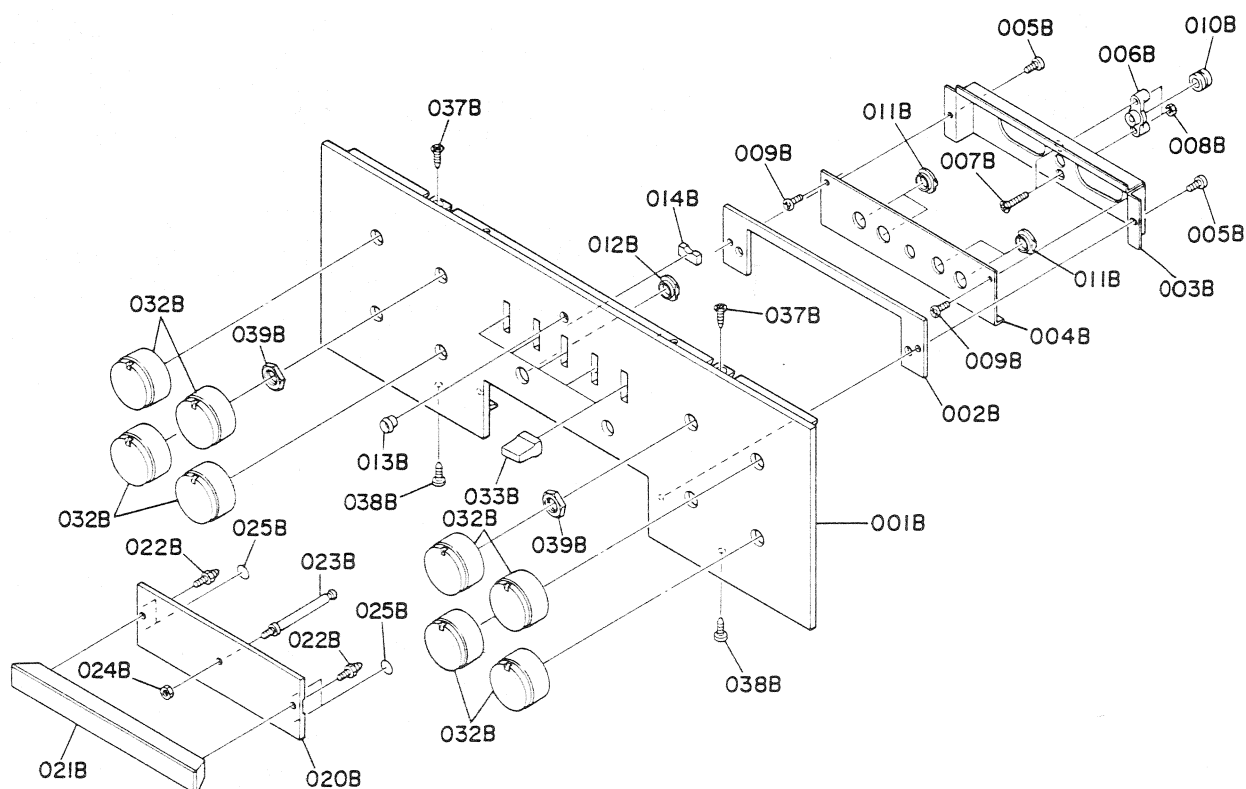


Tone Amp. (R-Ch) Assembly (PE00) Schematic Diagram and Component Locations



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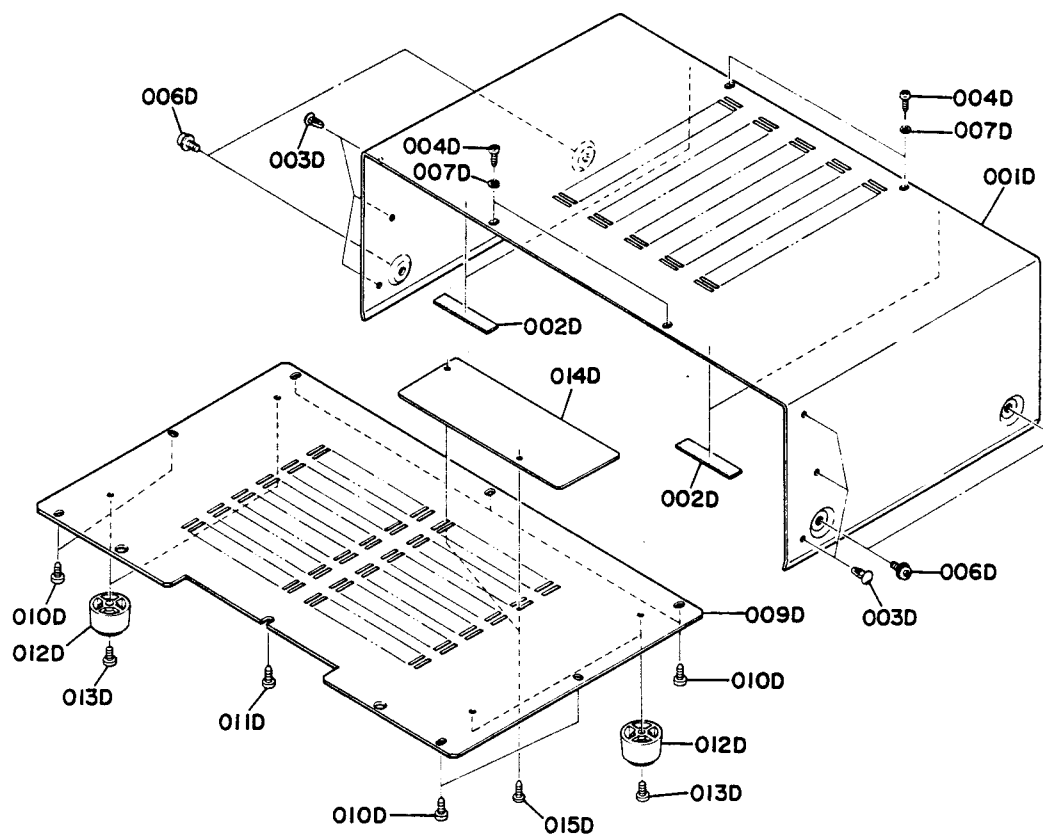
● Front Panel (C01-99)



REF. DESIG.	Q'TY F	PART NO.	DESCRIPTION
A	1	2147063400	Front Panel Assembly
001B	1	2147063010	Escutcheon, Front Panel
002B	1	2461063030	Escutcheon, Pocket Frame
003B	1	2144160020	Bracket
004B	1	2147063020	Escutcheon, Pocket Panel
005B	2	51060305A9	P.H.M. Screw P3 x 5
006B	1	2461271010	Holder
007B	2	51042610A0	F.H.M. Screw F2.6 x 10
008B	2	53112603A0	Hexagon Nut
009B	2	51100204E0	B.H.M. Screw B2 x 4
010B	1	1143259010	Bushing, Pin Holder
011B	4	2978259010	Bushing, Push Switch
012B	1	2978259010	Bushing, Power Switch
013B	1	2462259010	Bushing, LED

REF. DESIG.	Q'TY F	PART NO.	DESCRIPTION
B	1	2144063410	Pocket Cover Assembly
020B	1	2461063050	Escutcheon, Pocket Cover
021B	1	2461253110	Handle
022B	2	2461254010	Pin
023B	1	2461254020	Pin
024B	1	53110303E9	Hexagon Nut
025B	4	2461107020	Sheet
014B	1	2112053030	Cover
032B	8	2462154260	Knob
033B	5	2144154110	Knob, Lever Switch
037B	2	51340306B0	F.H. Tapped Screw F3 x 6
038B	2	51280308U0	B.H. Tapped Screw B3 x 8
039B	2	53118129G0	Hexagon Nut

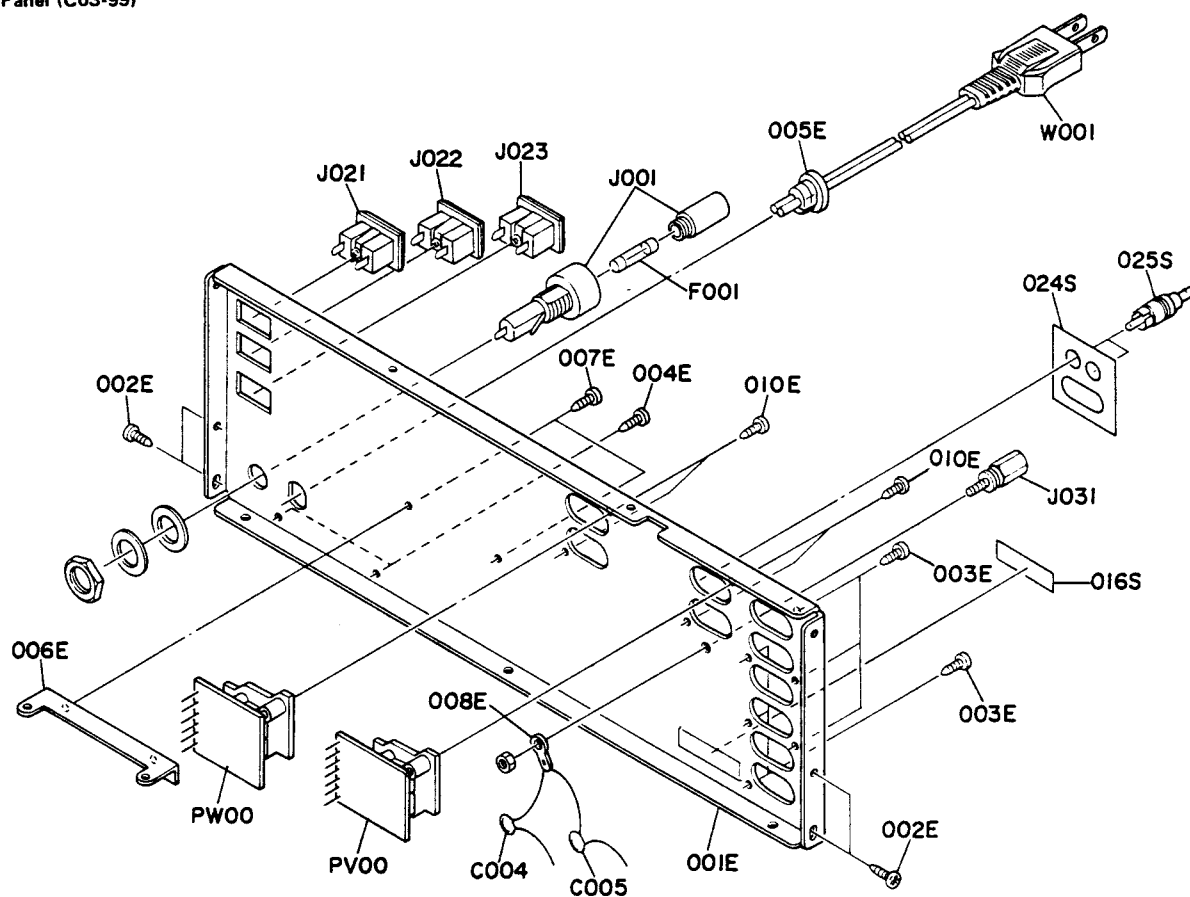
• Top Cover (C02-99)



REF. DESIG.	Q'TY F	PART NO.	DESCRIPTION
001D	1	2462257010	Lid, Top Cover
002D	4	2965118010	Spacer
003D	6	2991259010	Bushing
004D	4	51260308Z0	Tapped Screw 3 x 8
006D	4	51480406Z9	F. Washer Screw F4 x 6
007D	4	59030805P1	F. Washer

REF. DESIG.	Q'TY F	PART NO.	DESCRIPTION
009D	1	2462257020	Lid, Bottom Cover
010D	7	51280410U0	B.H. Tapped Screw B4 x 10
011D	1	51280406U0	B.H. Tapped Screw B4 x 6
012D	4	2932057010	Leg
013D	4	51570410S0	P. Taptite Screw P4 x 10
014D	1	2147109010	Shield
015D	2	51282606U0	B.H. Tapped Screw B2.6 x 6

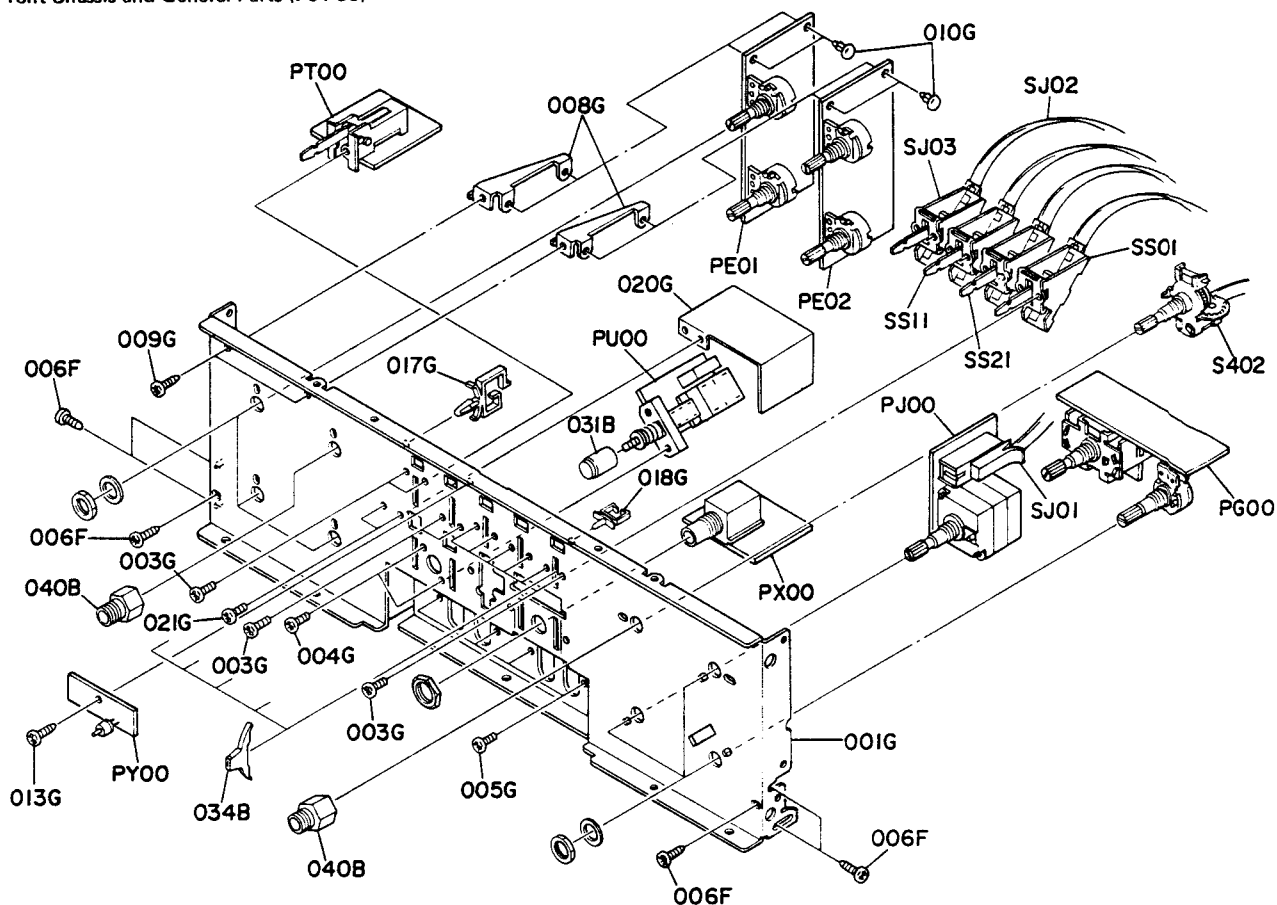
• Rear Panel (C03-99)



REF. DESIG.	Q'TY F	PART NO.	DESCRIPTION
001E	1	2147160210	Bracket, Rear Panel
002E	4	51280308U0	B.H. Tapped Screw B3 x 8
003E	6	51280308U0	B.H. Tapped Screw B3 x 8
004E	2	51280308U0	B.H. Tapped Screw B3 x 8
005E	1	1455259090	Bushing
006E	1	2147160020	Bracket
007E	2	51280308U0	B.H. Tapped Screw B3 x 8
008E	1	62030039W0	Lug
010E	4	51280308U0	B.H. Tapped Screw B3 x 8
016S	1	2112265010	Indicator
024S	1	2144863010	Hang Tag
025S	2	YQ01000020	Short Plug

REF. DESIG.	Q'TY F	PART NO.	DESCRIPTION
△ F001	1	FS10100090	Fuse 1A 250V
△ J001	1	YJ08000300	Jack, Fuse Holder
△ J021	1	YJ04000560	Jack, AC Outlet
△ J022	1	YJ04000560	Jack, AC Outlet
△ J023	1	YJ04000560	Jack, AC Outlet
J031	1	YT01010050	Terminal, Ground
△ W001	1	YC02400180	A.C. Power Cord
C004	1	DK18103310	Ceramic Cap. 0.01μF
C005	1	DK18103310	Ceramic Cap. 0.01μF

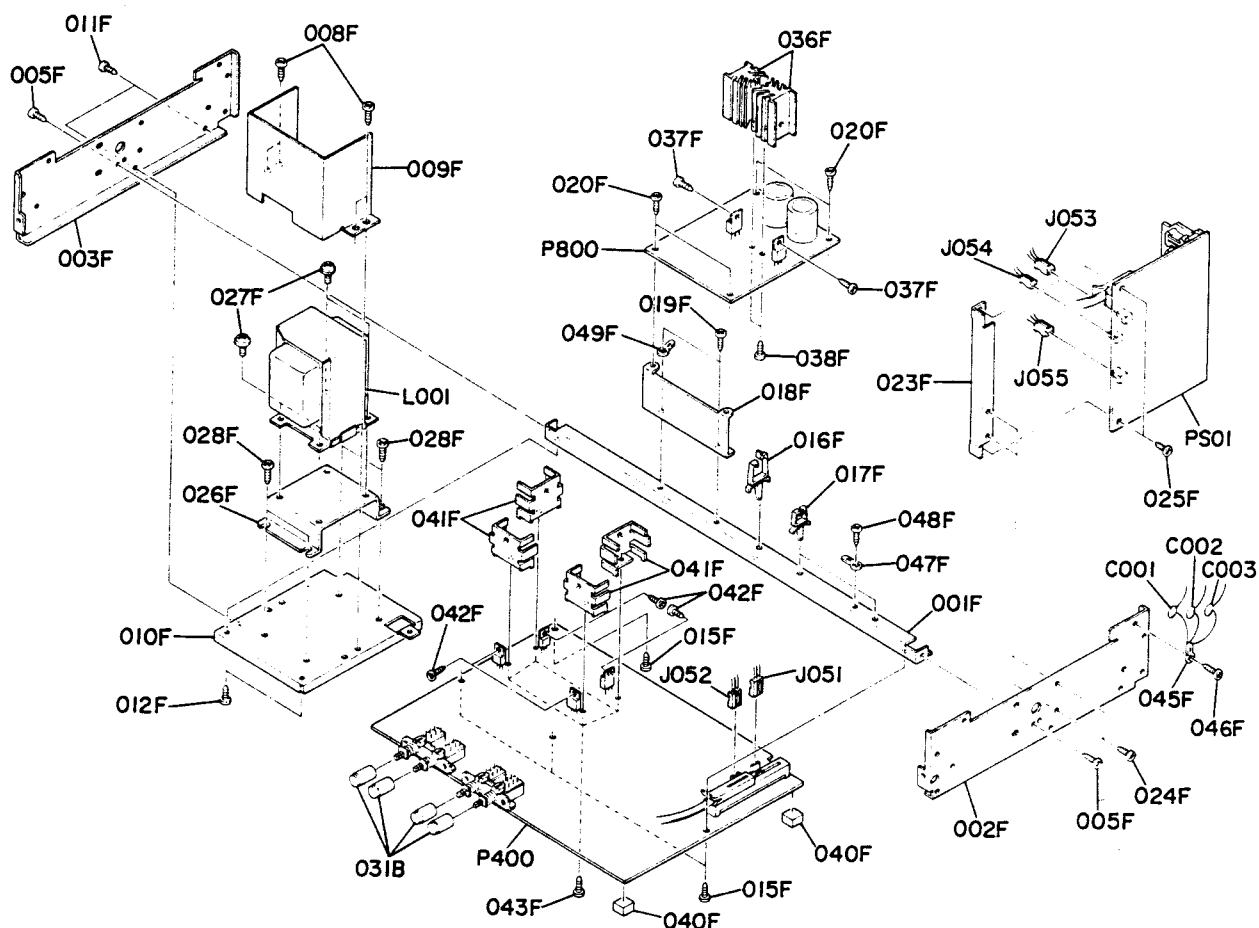
• Front Chassis and General Parts (P01-99)



REF. DESIG.	Q'TY F	PART NO.	DESCRIPTION
031B	1	2462154220	Knob, Power Switch
034B	5	2144259010	Bushing, Lever Switch
040B	2	2462101040	Support
006F	6	51280308B0	B.H. Tapped Screw B3 x 8
001G	1	2147160010	Bracket, Front Chassis
003G	10	51100306A9	B.H.M. Screw B3 x 6
004G	2	51100306A9	B.H.M. Screw B3 x 6
005G	4	51100306A9	B.H.M. Screw B3 x 6
008G	2	2144160030	Bracket
009G	2	51280308B0	B.H. Tapped Screw B3 x 8
010G	4	2276005050	Clamper
013G	1	51280308B0	B.H. Tapped Screw B3 x 8
017G	1	2886005060	Clamper
018G	1	2886005050	Clamper
020G	1	2144109020	Shield
021G	2	51100306A9	B.H.M. Screw B3 x 6

REF. DESIG.	Q'TY F	PART NO.	DESCRIPTION
SJ01	1	SS04040040	Slide Switch
SJ02	1	SB12470010	Switch Band, FLX
SJ03	1	SC00030010	Switch, Loudness
SS01	1	SS08040020	Slide Switch, Input Selector
SS11	1	SS04040040	Slide Switch, Tape Copy
SS21	1	SS04040040	Slide Switch, Tape Monitor
S402	1	SR00050040	Rotary Switch, Photo Selector

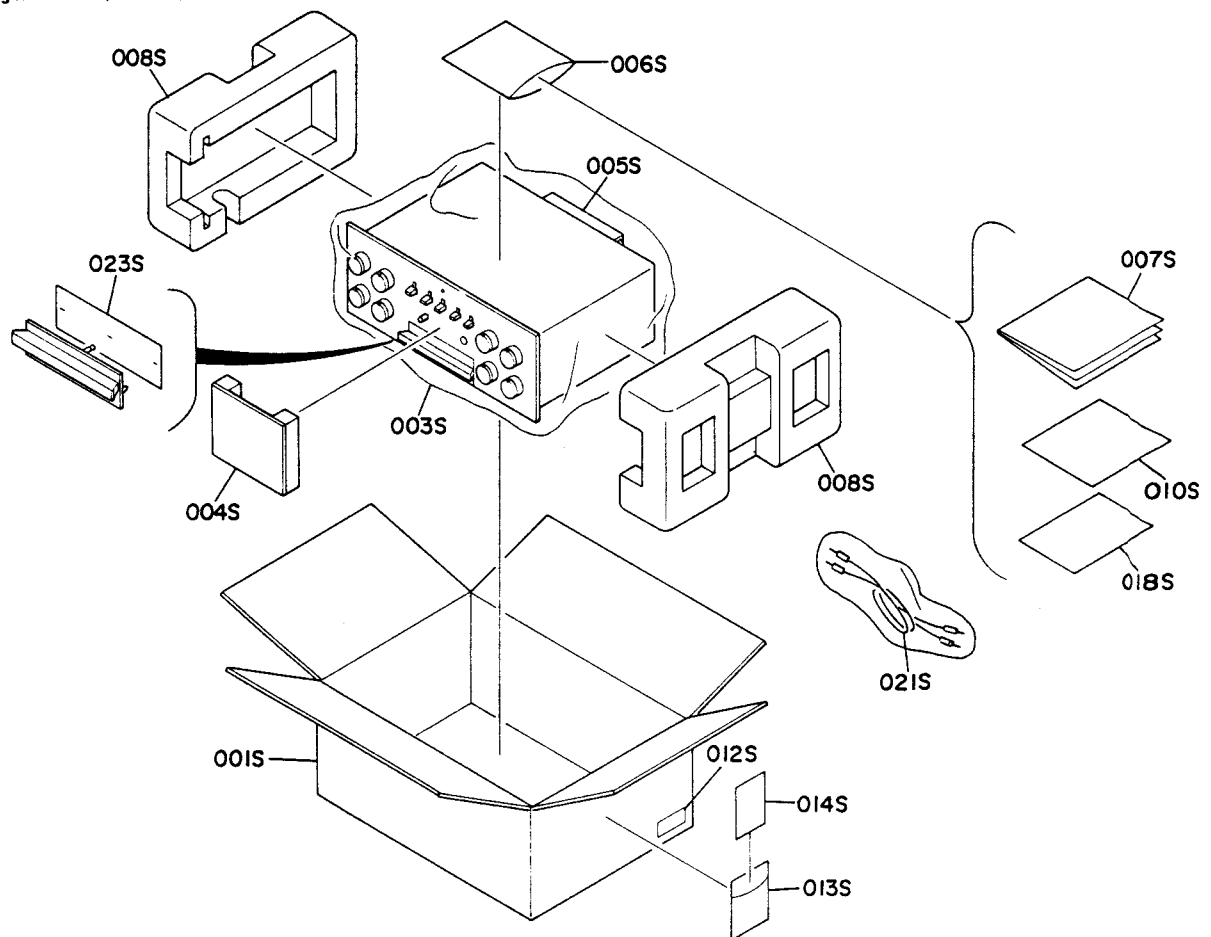
• Main Amp P.W. Board and Heatsink (P02-99)



REF. DESIG.	Q'TY F	PART NO.	DESCRIPTION
001F	1	2147126010	Stay, Center
002F	1	2978160030	Bracket, (R)
003F	1	2978160040	Bracket, (L)
005F	2	51280308B0	B.H. Tapped Screw B3 x 8
008F	4	51280410U0	B.H. Tapped Screw B4 x 10
009F	1	2978109060	Shield
010F	1	2147004010	Table, Transformer
011F	2	51280306B0	B.H. Tapped Screw B3 x 6
012F	2	51280306B0	B.H. Tapped Screw B3 x 6
015F	4	51280308B0	B.H. Tapped Screw B3 x 8
016F	1	2886005050	Clamper
017F	2	2886005060	Clamper
018F	1	2147160030	Bracket
019F	2	51280308B0	B.H. Tapped Screw B3 x 8
020F	4	51280308U0	B.H. Tapped Screw B3 x 8
023F	1	2147160040	Bracket
024F	2	51280306B0	B.H. Tapped Screw B3 x 6
025F	2	51280306B0	B.H. Tapped Screw B3 x 6
026F	1	2147160050	Bracket
027F	4	51490410S9	L. Washer Screw 4 x 10
045F	1	62030049W0	Lug
046F	1	51280306B0	B.H. Tapped Screw B3 x 6
047F	1	62030049W0	Lug
048F	1	51280308B0	B.H. Tapped Screw B3 x 8
049F	1	62030049W0	Lug

REF. DESIG.	Q'TY F	PART NO.	DESCRIPTION
028F	4	51280410B0	B.H. Tapped Screw B4 x 10
036F	2	2147267010	Heatsink
037F	2	51280308B0	B.H. Tapped Screw B3 x 8
038F	4	51280308B0	B.H. Tapped Screw B3 x 8
040F	2	2147056010	Buffer
041F	4	2212267020	Heatsink
042F	4	51280308B0	B.H. Tapped Screw B3 x 8
043F	4	51280308B0	B.H. Tapped Screw B3 x 8
C001	1	DK18103310	Ceramic Cap. 0.01μF
C002	1	DK18103310	Ceramic Cap. 0.01μF
C003	1	DK18103310	Ceramic Cap. 0.01μF
J051	1	YJ06002320	Jack, (3P)
J052	1	YJ06002330	Jack, (3P)
J053	1	YJ06002340	Jack, (3P)
J054	1	YJ06002350	Jack, (2P)
J055	1	YJ06002360	Jack, (3P)
Δ L001	1	TS16611120	Power Transformer
031B	4	2462154220	Knob

• Packing Materials (H01-99)



REF. DESIG.	Q'TY F	PART NO.	DESCRIPTION
001S	1	2147801010	Packing Case
003S	1	9090909040	Polyethylene Sheet
004S	1	2462809010	Cushion
005S	1	2864804010	Sleeve
006S	1	9013025010	Polyethylene Bag
007S	1	2147851110	Instructions
008S	2	2970809010	Cushion
010S	1	9631000110	Guarantee Card

REF. DESIG.	Q'TY F	PART NO.	DESCRIPTION
012S	2	9526019040	Serial No. Card
013S	1	2976813020	Envelope
014S	1	2976851040	Instructions
018S	1	9650000030	S. Station Card
021S	1	ZD01200080	Connective Cord
023S	1	2461107010	Sheet

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REF. DESIG.	Q'TY F	PART NO.	DESCRIPTION
P400	1	WK21471610	P400-PRE-AMP. CIRCUIT BOARD P.W. Board, Pre-Amp.
CD01	1	EA10701030	P400-CAPACITORS Elect 100μF 10V
CD02	1	DF16103300	Film 0.01μF ±10%
CL01	1	DF76101550	Film 100pF ±10%
CL02	1	DF76101550	Film 100pF ±10%
CL03	1	DF76101550	Film 100pF ±10%
CL04	1	DF76101550	Film 100pF ±10%
CL05	1	DF76101550	Film 100pF ±10%
CL06	1	DF76101550	Film 100pF ±10%
CL07	1	EA10602530	Elect 10μF 25V
CL08	1	EA10602530	Elect 10μF 25V
CL09	1	DF16104300	Film 0.1μF ±10%
CL10	1	DF16104300	Film 0.1μF ±10%
CL11	1	DF16473300	Film 0.047μF ±10%
CL12	1	DF16473300	Film 0.047μF ±10%
CL13	1	DF76100550	Film 10pF ±10%
CL14	1	DF76100550	Film 10pF ±10%
CL16	1	DF16105530	Film 1μF ±10%
CL18	1	DF16105530	Film 1μF ±10%
CL19	1	EA22703550	Elect 200μF 35V
CL20	1	EA22703550	Elect 200μF 35V
CL21	1	EA22703550	Elect 200μF 35V
CL22	1	EA22703550	Elect 200μF 35V
CL25	1	EA10703540	Elect 100μF 35V
CL26	1	EA10703540	Elect 100μF 35V
CL45	1	75061001P0	Jumper
CL46	1	75061001P0	Jumper
CL47	1	EQ10702510	Elect 100μF 25V
CL48	1	EQ10702510	Elect 100μF 25V
CL49	1	DF16105510	Film 1μF ±10%
CL50	1	DF16105510	Film 1μF ±10%
CL51	1	DF16105510	Film 1μF ±10%
CL52	1	DF16105510	Film 1μF ±10%
CL91	1	DF16472300	Film 4700pF ±10%
CL92	1	DF16472300	Film 4700pF ±10%
CM01	1	EA22700610	Elect 220μF 6.3V
CM02	1	EA22700610	Elect 220μF 6.3V
CM03	1	DF16152510	Film 1500pF ±10%
CM04	1	DF16152510	Film 1500pF ±10%
CM05	1	EA10800690	Elect 1000μF 6.3V
CM06	1	EA10800690	Elect 1000μF 6.3V
CM07	1	EA10800690	Elect 1000μF 6.3V
CM08	1	EA10800690	Elect 1000μF 6.3V
CM09	1	DF16222510	Film 2200pF ±10%
CM10	1	DF16222510	Film 2200pF ±10%
CM11	1	DF16222510	Film 2200pF ±10%
CM12	1	DF16222510	Film 2200pF ±10%
CM13	1	DF16222510	Film 2200pF ±10%
CM14	1	DF16222510	Film 2200pF ±10%
CM15	1	EA10602530	Elect 10μF 25V
CM16	1	EA10602530	Elect 10μF 25V
CM17	1	DF76470550	Film 47pF ±10%
CM18	1	DF76470550	Film 47pF ±10%
CM19	1	EA22602520	Elect 22μF 25V
CM20	1	EA22602520	Elect 22μF 25V

REF. DESIG.	Q'TY F	PART NO.	DESCRIPTION
CM21	1	DF16105510	Film 1μF ±10%
CM22	1	DF16105510	Film 1μF ±10%
CM23	1	DF16152510	Film 1500pF ±10%
CM24	1	DF16152510	Film 1500pF ±10%
CM25	1	EA47701690	Elect 470μF 16V
CM26	1	EA47701690	Elect 470μF 16V
CM27	1	EA47701690	Elect 470μF 16V
CM28	1	EA47701690	Elect 470μF 16V
CM29	1	DF16105510	Film 1μF ±10%
CM31	1	DF16105510	Film 1μF ±10%
C401	1	DF76101550	Film 100pF ±10%
C402	1	DF76101550	Film 100pF ±10%
C403	1	EA10800690	Elect 1000μF 6.3V
C404	1	EA10800690	Elect 1000μF 6.3V
C405	1	EA10800690	Elect 1000μF 6.3V
C406	1	EA10800690	Elect 1000μF 6.3V
C407	1	DF16222300	Film 2200pF ±10%
C408	1	DF16222300	Film 2200pF ±10%
C409	1	DF16222300	Film 2200pF ±10%
C410	1	DF16222300	Film 2200pF ±10%
C411	1	DF15152300	Film 1500pF ±5%
C412	1	DF15152300	Film 1500pF ±5%
C413	1	DF55681090	Film 680pF ±5%
C414	1	DF55681090	Film 680pF ±5%
C415	1	DF54322010	Film 3200pF ±5%
C416	1	DF54322010	Film 3200pF ±5%
C417	1	DF74104010	Film 0.1μF ±2%
C418	1	DF74104010	Film 0.1μF ±2%
C419	1	DF14362010	Film 3600pF ±2%
C420	1	DF14362010	Film 3600pF ±2%
C421	1	DF74333010	Film 0.033pF ±2%
C422	1	DF74333010	Film 0.033pF ±2%
C423	1	DF15222300	Film 2200pF ±10%
C424	1	DF15222300	Film 2200pF ±10%
C425	1	EQ10602510	Elect 10μF 25V
C426	1	EQ10602510	Elect 10μF 25V
C427	1	DF16105510	Film 1μF ±10%
C428	1	DF16105510	Film 1μF ±10%
C433	1	EA22703550	Elect 220μF 35V
C434	1	EA22703550	Elect 220μF 35V
C435	1	EA22703550	Elect 220μF 35V
C436	1	EA22703550	Elect 220μF 35V
C437	1	DF16105530	Film 1μF ±10%
C438	1	DF16105510	Film 1μF ±10%
C439	1	DF16105530	Film 1μF ±10%
C445	1	DF55681090	Film 680pF ±5%
C446	1	DF55681090	Film 680pF ±5%

REF. DESIG.	Q'TY F	PART NO.	DESCRIPTION
			P400-RESISTORS (All Resistors are $\pm 5\%$ and $\frac{1}{4}W$)
RD01	1	GD05304140	300K Ω
RD02	1	GD05103140	10K Ω
RD03	1	GD05104140	100K Ω
RD04	1	GD05103140	10K Ω
RD05	1	GD05753140	75K Ω
RD06	1	GD05101140	100 Ω
RD07	1	GD05153140	15K Ω
RD08	1	GD05183140	18K Ω
RL01	1	GD05224140	220K Ω
RL02	1	GD05224140	220K Ω
RL03	1	GD05471140	470 Ω
RL04	1	GD05471140	470 Ω
RL05	1	GD05222140	2.2K Ω
RL06	1	GD05222140	2.2K Ω
RL07	1	GD05222140	2.2K Ω
RL08	1	GD05222140	2.2K Ω
RL09	1	GD05561140	560 Ω
RL10	1	GD05561140	560 Ω
RL11	1	GD05561140	560 Ω
RL12	1	GD05561140	560 Ω
RL13	1	GD05102140	1K Ω
RL14	1	GD05102140	1K Ω
RL15	1	GD05393140	39K Ω
RL16	1	GD05393140	39K Ω
RL17	1	GD05102140	1K Ω
RL18	1	GD05102140	1K Ω
RL19	1	GD05181140	180 Ω
RL20	1	GD05181140	180 Ω
RL21	1	GD05822140	8.2K Ω
RL22	1	GD05822140	8.2K Ω
RL23	1	GD05391140	390 Ω
RL24	1	GD05391140	390 Ω
RL25	1	GD05222140	2.2K Ω
RL26	1	GD05222140	2.2K Ω
RL27	1	GD05222140	2.2K Ω
RL28	1	GD05222140	2.2K Ω
RL29	1	GD05222140	2.2K Ω
RL30	1	GD05222140	2.2K Ω
RL31	1	GD05222140	2.2K Ω
RL32	1	GD05222140	2.2K Ω
RL33	1	GD05331140	330 Ω
RL34	1	GD05331140	330 Ω
RL35	1	GD05331140	330 Ω
RL36	1	GD05331140	330 Ω
RL37	1	GD05563140	56K Ω
RL38	1	GD05563140	56K Ω
RL39	1	GD05563140	56K Ω
RL40	1	GD05563140	56K Ω
RL41	1	GD05472140	4.7K Ω
RL42	1	GD05472140	4.7K Ω
RL43	1	GD05182140	1.8K Ω
RL44	1	GD05182140	1.8K Ω
RL45	1	RA02220100	2.2K Ω (B), Trimming
RL46	1	RA02220100	2.2K Ω (B), Trimming
RL47	1	GG05330140	33 Ω
RL48	1	GG05330140	33 Ω
RL49	1	GG05330140	33 Ω
RL50	1	GG05330140	33 Ω

REF. DESIG.	Q'TY F	PART NO.	DESCRIPTION
RL51	1	GG05101140	100 Ω
RL52	1	GG05101140	100 Ω
RL53	1	GG05100140	10 Ω
RL54	1	GG05100140	10 Ω
RL55	1	GG05100140	10 Ω
RL56	1	GG05100140	10 Ω
RL57	1	GG05101140	100 Ω
RL58	1	GG05101140	100 Ω
RL59	1	GG05101140	100 Ω
RL60	1	GG05101140	100 Ω
RL61	1	GG05047120	4.7 Ω
RL62	1	GG05047120	4.7 Ω
RL63	1	GG05047120	4.7 Ω
RL64	1	GG05047120	4.7 Ω
RL65	1	GA05100010	10 Ω 1W
RL66	1	GA05100010	10 Ω 1W
RL67	1	GD05103140	10K Ω
RL68	1	GD05103140	10K Ω
RL69	1	GA05101010	100 Ω 1W
RL70	1	GA05101010	100 Ω 1W
RL71	1	GA05101010	100 Ω 1W
RL72	1	GA05101010	100 Ω 1W
RL73	1	GD05101140	100 Ω
RL74	1	GD05101140	100 Ω
RL75	1	GD05273140	27K Ω
RL76	1	GD05273140	27K Ω
RL77	1	GD05302140	3K Ω
RL78	1	GD05302140	3K Ω
RL79	1	75061001P0	Jumper
RL81	1	GG05100140	10 Ω
RL82	1	GG05100140	10 Ω
RL83	1	GG05100140	10 Ω
RL84	1	GG05100140	10 Ω
RL91	1	GD05222140	2.2K Ω
RL92	1	GD05222140	2.2K Ω
RL93	1	GD05474140	470K Ω
RL94	1	GD05474140	470K Ω
RM01	1	GM21415000	150 Ω $\pm 2\%$
RM02	1	GM21415000	150 Ω $\pm 2\%$
RM03	1	GM21415000	150 Ω $\pm 2\%$
RM04	1	GM21415000	150 Ω $\pm 2\%$
RM05	1	GD05100140	10 Ω
RM06	1	GD05100140	10 Ω
RM07	1	GM21447000	470 Ω $\pm 2\%$
RM08	1	GM21447000	470 Ω $\pm 2\%$
RM09	1	GM21447000	470 Ω $\pm 2\%$
RM10	1	GM21447000	470 Ω $\pm 2\%$
RM11	1	GM21456010	5.6K Ω $\pm 2\%$
RM12	1	GM21456010	5.6K Ω $\pm 2\%$
RM13	1	GM21456010	5.6K Ω $\pm 2\%$
RM14	1	GM21456010	5.6K Ω $\pm 2\%$
RM15	1	GD05150140	15 Ω
RM16	1	GD05150140	15 Ω
RM17	1	GD05150140	15 Ω
RM18	1	GD05150140	15 Ω
RM19	1	GM21447000	470 Ω $\pm 2\%$
RM20	1	GM21447000	470 Ω $\pm 2\%$

REF. DESIG.	Q'TY F	PART NO.	DESCRIPTION	
RM21	1	GM21447000	470Ω	±2%
RM22	1	GM21447000	470Ω	±2%
RM23	1	GM214270G0	27Ω	±2%
RM24	1	GM214270G0	27Ω	±2%
RM25	1	GD05680140	68Ω	
RM26	1	GD05680140	68Ω	
RM27	1	GD05681140	680Ω	
RM28	1	GD05681140	680Ω	
RM29	1	GD05472140	4.7KΩ	
RM30	1	GD05472140	4.7KΩ	
RM31	1	GD05272140	2.7KΩ	
RM32	1	GD05272140	2.7KΩ	
RM33	1	GD05332140	3.3KΩ	
RM34	1	GD05332140	3.3KΩ	
RM35	1	GG05100140	10Ω	
RM36	1	GG05100140	10Ω	
RM37	1	GG05100140	10Ω	
RM38	1	GG05100140	10Ω	
RM39	1	GD05101140	100Ω	
RM40	1	GD05101140	100Ω	
RM41	1	GD05273140	27KΩ	
RM42	1	GD05273140	27KΩ	
⚡ RM43	1	GG05681120	680Ω	½W
⚡ RM44	1	GG05681120	680Ω	½W
⚡ RM45	1	GG05681120	680Ω	½W
⚡ RM46	1	GG05681120	680Ω	½W
R401	1	GM21439020	39KΩ	±2%
R402	1	GM21439020	39KΩ	±2%
R403	1	GM21410030	100KΩ	±2%
R404	1	GM21410030	100KΩ	±2%
R405	1	GM21410030	100KΩ	±2%
R406	1	GM21410030	100KΩ	±2%
R407	1	GM21410030	100KΩ	±2%
R408	1	GM21410030	100KΩ	±2%
R409	1	GM21410000	100Ω	±2%
R410	1	GM21410000	100Ω	±2%
R411	1	GM21410010	1KΩ	±2%
R412	1	GM21410010	1KΩ	±2%
R413	1	GM21410010	1KΩ	±2%
R414	1	GM21410010	1KΩ	±2%
R415	1	GD05822140	8.2KΩ	
R416	1	GD05822140	8.2KΩ	
R417	1	GD05682140	6.8KΩ	
R418	1	GD05682140	6.8KΩ	
R419	1	GD05822140	8.2KΩ	
R420	1	GD05822140	8.2KΩ	
R421	1	GD05682140	6.8KΩ	
R422	1	GD05682140	6.8KΩ	
R423	1	GD05151140	150Ω	
R424	1	GD05151140	150Ω	
R425	1	GD05151140	150Ω	
R426	1	GD05151140	150Ω	
R427	1	GM21456020	56KΩ	±2%
R428	1	GM21456020	56KΩ	±2%
R429	1	GM21456020	56KΩ	±2%
R430	1	GM21456020	56KΩ	±2%
R431	1	GM214390G0	39Ω	±2%
R432	1	GM214390G0	39Ω	±2%
R433	1	GD05272140	2.7KΩ	
R434	1	GD05272140	2.7KΩ	
R435	1	GD05272140	2.7KΩ	

REF. DESIG.	Q'TY F	PART NO.	DESCRIPTION	
R436	1	GD05272140	2.7KΩ	
R437	1	GD05151140	150Ω	
R438	1	GD05151140	150Ω	
R439	1	GD05151140	150Ω	
R440	1	GD05151140	150Ω	
R441	1	GD05182140	1.8KΩ	
R442	1	GD05182140	1.8KΩ	
R443	1	GD05272140	2.7KΩ	
R444	1	GD05272140	2.7KΩ	
R449	1	GG05100140	10Ω	
R450	1	GG05100140	10Ω	
R451	1	GG05100140	10Ω	
R452	1	GG05100140	10Ω	
R453	1	GM21422010	2.2KΩ	±2%
R454	1	GM21422010	2.2KΩ	±2%
R455	1	75061001P0	Jumper	
R456	1	75061001P0	Jumper	
R457	1	GD05224140	220KΩ	
R458	1	GD05224140	220KΩ	
R459	1	GD05391140	390Ω	
R460	1	GD05391140	390Ω	
⚡ R461	1	GG05820120	82Ω	½W
⚡ R462	1	GG05820120	82Ω	½W
⚡ R463	1	GG05820120	82Ω	½W
⚡ R464	1	GG05820120	82Ω	½W
R465	1	GD05222140	2.2KΩ	
R466	1	GD05222140	2.2KΩ	
R467	1	GD05473140	47KΩ	
R468	1	GD05473140	47KΩ	
P400-SEMICONDUCTORS				
QD01	1	HT110152A0	Transistor	2SA1015(O or Y)
QD02	1	HT323202B0	Transistor	2SC2320(E or F)
QD03	1	HD20011050	Diode	1S1555
QD04	1	HT323202B0	Transistor	2SC2320(E or F)
QL01	1	HC10021020	IC	M47F
QL02	1	HC10021020	IC	M47F
QL03	1	HT322592F0	Transistor	2SC2259(F or G)
QL04	1	HT322592F0	Transistor	2SC2259(F or G)
QL05	1	HD20011050	Diode	1S1555
QL06	1	HD20011050	Diode	1S1555
QL07	1	HD20011050	Diode	1S1555
QL08	1	HD20011050	Diode	1S1555
QL09	1	HT317752D0	Transistor	2SC1775A(D or E)
QL10	1	HT317752D0	Transistor	2SC1775A(D or E)
QL11	1	HD20011050	Diode	1S1555
QL12	1	HD20011050	Diode	1S1555
QL13	1	HT108722D0	Transistor	2SA872A(D or E)
QL14	1	HT108722D0	Transistor	2SA872A(D or E)
QL15	1	HT317752D0	Transistor	2SC1775A(D or E)
QL16	1	HT317752D0	Transistor	2SC1775A(D or E)
QL17	1	HD20011050	Diode	1S1555
QL18	1	HD20011050	Diode	1S1555
QL19	1	HT108722D0	Transistor	2SA872A(D or E)
QL20	1	HT108722D0	Transistor	2SA872A(D or E)
QL21	1	HD20011050	Diode	1S1555
QL22	1	HD20011050	Diode	1S1555
QL23	1	HD20011050	Diode	1S1555
QL24	1	HD20011050	Diode	1S1555
QL25	1	HT108722D0	Transistor	2SA872A(D or E)
QL26	1	HT108722D0	Transistor	2SA872A(D or E)
QL27	1	HT317752D0	Transistor	2SC1775A(D or E)
QL28	1	HT317752D0	Transistor	2SC1775A(D or E)

REF. DESIG.	Q'TY F	PART NO.	DESCRIPTION
QL29	1	HT323202B0	Transistor 2SC2320(E or F)
QL30	1	HT323202B0	Transistor 2SC2320(E or F)
QL31	1	HT406661C0	Transistor 2SD666(C)
QL32	1	HT406661C0	Transistor 2SD666(C)
QL33	1	HT206461C0	Transistor 2SB646(C)
QL34	1	HT206461C0	Transistor 2SB646(C)
QL35	1	HT325912B0	Transistor 2SC2591(Q or R)
QL36	1	HT325912B0	Transistor 2SC2591(Q or R)
QL37	1	HT111112B0	Transistor 2SA1111(Q or R)
QL38	1	HT111112B0	Transistor 2SA1111(Q or R)
QL43	1	HD20005010	Diode W06B
QM01	1	HT325451E0	Transistor 2SC2545(E)
QM02	1	HT325451E0	Transistor 2SC2545(E)
QM03	1	HT325451E0	Transistor 2SC2545(E)
QM04	1	HT325451E0	Transistor 2SC2545(E)
QM05	1	HT325451E0	Transistor 2SC2545(E)
QM06	1	HT325451E0	Transistor 2SC2545(E)
QM07	1	HT325451E0	Transistor 2SC2545(E)
QM08	1	HT325451E0	Transistor 2SC2545(E)
QM09	1	HT110831E0	Transistor 2SA1083(E)
QM10	1	HT110831E0	Transistor 2SA1083(E)
QM11	1	HT110831E0	Transistor 2SA1083(E)
QM12	1	HT110831E0	Transistor 2SA1083(E)
QM13	1	HT110831E0	Transistor 2SA1083(E)
QM14	1	HT110831E0	Transistor 2SA1083(E)
QM15	1	HT110831E0	Transistor 2SA1083(E)
QM16	1	HT110831E0	Transistor 2SA1083(E)
QM17	1	HT108722D0	Transistor 2SA872A(D or E)
QM18	1	HT108722D0	Transistor 2SA872A(D or E)
QM19	1	HT317752D0	Transistor 2SC1775A(D or E)
QM20	1	HT317752D0	Transistor 2SC1775A(D or E)
QM21	1	HT323202B0	Transistor 2SC2320(E or F)
QM22	1	HT323202B0	Transistor 2SC2320(E or F)
QM23	1	HT406661C0	Transistor 2SD666(C)
QM24	1	HT406661C0	Transistor 2SD666(C)
QM25	1	HT206461C0	Transistor 2SB646(C)
QM26	1	HT206461C0	Transistor 2SB646(C)
Q401	1	HF201512B0	F.E.T. 2SK151(F or G)
Q402	1	HF201512B0	F.E.T. 2SK151(F or G)
Q403	1	HF100512B0	F.E.T. 2SJ51(F or G)
Q404	1	HF100512B0	F.E.T. 2SJ51(F or G)
Q409	1	HT322401B0	Transistor 2SC2240(BL)
Q410	1	HT322401B0	Transistor 2SC2240(BL)
Q411	1	HT109701B0	Transistor 2SA970(BL)
Q412	1	HT109701B0	Transistor 2SA970(BL)
Q413	1	HT109701A0	Transistor 2SA970(BL)
Q414	1	HT109701A0	Transistor 2SA970(BL)
Q415	1	HT322401A0	Transistor 2SC2240(GR)
Q416	1	HT322401A0	Transistor 2SC2240(GR)
Q417	1	HT108722D0	Transistor 2SA872A(D or E)
Q418	1	HT108722D0	Transistor 2SA872A(D or E)
Q419	1	HT317752D0	Transistor 2SC1775A(D or E)
Q420	1	HT317752D0	Transistor 2SC1775A(D or E)
Q421	1	HT323201F0	Transistor 2SC2320F(F)
Q422	1	HT323201F0	Transistor 2SC2320F(F)
Q423	1	HT325912B0	Transistor 2SC2591(Q or R)

REF. DESIG.	Q'TY F	PART NO.	DESCRIPTION
Q424	1	HT325912B0	Transistor 2SC2591(Q or R)
Q425	1	HT111112B0	Transistor 2SA1111(Q or R)
Q426	1	HT111112B0	Transistor 2SA1111(Q or R)
Q427	1	HD20011050	Diode 1S1555
Q428	1	HD20011050	Diode 1S1555
Q429	1	HD20011050	Diode 1S1555
Q430	1	HD20011050	Diode 1S1555
J401	1	YP01001030	Plug (3P)
J402	1	YP01001030	Plug (3P)
△ LL01	1	LY20240010	Relay, 3A (323D024)
SL01	1	SP02020260	Push Switch
SL02	1	SP02020260	Push Switch
S401	1	SS06060030	Slide Switch
S402	1	SR00050040	Rotary Switch
P800	1	WK21472720	P800-POWER SUPPLY CIRCUIT BOARD P.W. Board, Power Supply
△ C801	1	EB10805070	P800-CAPACITORS Elect 1000μF 50V
△ C802	1	EB10805070	Elect 1000μF 50V
C805	1	DF16103350	Film 0.01μF ±10%
C806	1	DF16103350	Film 0.01μF ±10%
C807	1	EA10701030	Elect 100μF 10V
C808	1	EA10701030	Elect 100μF 10V
C809	1	EA10505030	Elect 1μF 50V
C810	1	EA10505030	Elect 1μF 50V
C811	1	EA47703590	Elect 470μF 35V
C812	1	EA47703590	Elect 470μF 35V
C815	1	DK18103510	Ceramic 0.01μF
C816	1	DK18103510	Ceramic 0.01μF
C817	1	DK18103510	Ceramic 0.01μF
C818	1	DK18103510	Ceramic 0.01μF
R801	1	GD05151140	P800-RESISTORS (All Resistors are ±5% and ¼W) 150Ω
R802	1	GD05151140	150Ω
R803	1	GD05102140	1KΩ
R804	1	GD05102140	1KΩ
R805	1	GD05272120	2.7KΩ ¼W
R806	1	GD05272120	2.7KΩ ¼W
R807	1	GD05183140	18KΩ
R808	1	GD05183140	18KΩ
R809	1	GD05472140	4.7KΩ
R810	1	GD05472140	4.7KΩ
△ R811	1	GG05100120	10Ω ¼W
△ R812	1	GG05100120	10Ω ¼W
△ Q801	1	HT325912B0	P800-SEMICONDUCTORS Transistor 2SC2591(Q or R)
△ Q802	1	HT111112B0	Transistor 2SA1111(Q or R)
Q803	1	HT322402A0	Transistor 2SC2240(GR or BL)
Q804	1	HT109702A0	Transistor 2SA970(GR or BL)
Q805	1	HF200301C0	F.E.T. 2SK30(Y)
Q806	1	HF200301C0	F.E.T. 2SK30(Y)
Q807	1	HT317752D0	Transistor 2SC1775A(D or E)
Q808	1	HT108722D0	Transistor 2SA872A(D or E)
Q809	1	HD30008010	Zener HZ6B1L
Q810	1	HD30008010	Zener HZ6B1L

REF. DESIG.	Q'TY F	PART NO.	DESCRIPTION
△Q811	1	HD20015030	Diode DS135D
△Q812	1	HD20015030	Diode DS135D
△Q813	1	HD20015030	Diode DS135D
△Q814	1	HD20015030	Diode DS135D
P800-MISCELLANEOUS			
△F801	1	FS10100090	Fuse, 1A 250V
△F802	1	FS10100090	Fuse, 1A 250V
J801 J804	4	YJ08000170	Jack, Fuse Holder
PE01-TONE AMP. (L-CH) CIRCUIT BOARD			
PE01	1	WK21472730	P.W. Board, Tone Amp. (L-Ch)
PE01-CAPACITORS			
CE01	1	EA10505090	Elect 1μF 50V
CE02	1	EA10505090	Elect 1μF 50V
CE03	1	DF55101090	Film 100pF ±5%
CE05	1	EA10701030	Elect 100μF 10V
CE07	1	EA10701030	Elect 100μF 10V
CE09	1	DF16472350	Film 4700pF ±10%
CE11	1	DF16472350	Film 4700pF ±10%
CE13	1	DF76560550	Film 56pF ±10%
CE15	1	EA10602530	Elect 10μF 25V
CE17	1	DF76100550	Film 10pF ±10%
CE19	1	EQ10602510	Elect 10μF 25V
CE21	1	DF15563300	Film 0.056μF ±5%
CE23	1	DF15563300	Film 0.056μF ±5%
CE25	1	DF15393300	Film 0.039μF ±5%
CE27	1	DF16472350	Film 4700pF ±10%
CE29	1	EA10703590	Elect 100μF 35V
CE31	1	EA10703590	Elect 100μF 35V
PE01-RESISTORS (All Resistors are ±5% and ¼W)			
RE01	1	GD05224140	220KΩ
RE03	1	GD05331140	330Ω
RE05	1	GD05821140	820Ω
RE07	1	GD05821140	820Ω
RE09	1	GD05183140	18KΩ
RE11	1	GD05183140	18KΩ
RE13	1	GD05330140	33Ω
RE15	1	GD05330140	33Ω
RE17	1	GD05474140	470KΩ
RE19	1	GD05474140	470KΩ
RE21	1	GD05101140	100Ω
RE23	1	GD05101140	100Ω
RE25	1	GD05472140	4.7KΩ
RE27	1	GD05272140	2.7KΩ
RE29	1	GD05392140	3.9KΩ
RE31	1	GG05220140	22Ω
RE33	1	GG05220140	22Ω
RE35	1	GD05182140	1.8KΩ
RE37	1	GD05822140	8.2KΩ
RE39	1	GD05822140	8.2KΩ

REF. DESIG.	Q'TY F	PART NO.	DESCRIPTION
RE41	1	GD05391140	390Ω
RE43	1	GD05473140	47KΩ
RE45	1	GD05224140	220KΩ
RE47	1	GD05182140	1.8KΩ
△RE49	1	GG05471140	470Ω
△RE51	1	GG05471140	470Ω
RE53	1	RK05030330	50KΩ(B), Variable
RE55	1	RK02030530	20KΩ(W), Variable
PE01-SEMICONDUCTORS			
QE01	1	HT322401A0	Transistor 2SC2240(GR)
QE03	1	HT109701A0	Transistor 2SA970(GR)
QE05	1	HT108722D0	Transistor 2SA872A(D or E)
QE07	1	HT317752D0	Transistor 2SC1775A(D or E)
QE09	1	HT323202B0	Transistor 2SC2320(E or F)
QE11	1	HT406661C0	Transistor 2SD666(C)
QE13	1	HT206461C0	Transistor 2SB646(C)
PE02-TONE AMP. (R-CH) CIRCUIT BOARD			
PE02	1	WK21472740	P.W. Board, Tone Amp. (R-Ch)
PE02-CAPACITORS			
CE02	1	EA10505090	Elect 1μF 50V
CE04	1	DF55101090	Film 100pF ±5%
CE06	1	EA10701030	Elect 100μF 10V
CE08	1	EA10701030	Elect 100μF 10V
CE10	1	DF16472350	Film 4700pF ±10%
CE12	1	DF16472350	Film 4700pF ±10%
CE14	1	DF76560550	Film 56pF ±10%
CE16	1	EA10602530	Elect 10μF 25V
CE18	1	DF76100550	Film 10pF ±10%
CE20	1	EQ10602510	Elect 10μF 25V
CE22	1	DF15563300	Film 0.056μF ±5%
CE24	1	DF15563300	Film 0.056μF ±5%
CE26	1	DF15393300	Film 0.039μF ±5%
CE28	1	DF16472350	Film 4700pF ±10%
CE30	1	EA10703590	Elect 100μF 35V
CE32	1	EA10703590	Elect 100μF 35V
PE02-RESISTORS (All Resistors are ±5% and ¼W)			
RE02	1	GD05224140	220KΩ
RE04	1	GD05331140	330Ω
RE06	1	GD05821140	820Ω
RE08	1	GD05821140	820Ω
RE10	1	GD05183140	18KΩ
RE12	1	GD05183140	18KΩ
RE14	1	GD05330140	33Ω
RE16	1	GD05330140	33Ω
RE18	1	GD05474140	470KΩ
RE20	1	GD05474140	470KΩ
RE22	1	GD05101140	100Ω
RE24	1	GD05101140	100Ω
RE26	1	GD05472140	4.7KΩ
RE28	1	GD05272140	2.7KΩ
RE30	1	GD05392140	3.9KΩ
RE32	1	GG05220140	22Ω
RE34	1	GG05220140	22Ω
RE36	1	GD05182140	1.8KΩ
RE38	1	GD05822140	8.2KΩ
RE40	1	GD05822140	8.2KΩ

REF. DESIG.	Q'TY F	PART NO.	DESCRIPTION
RE42	1	GD05391140	390Ω
RE44	1	GD05473140	47KΩ
RE46	1	GD05224140	220KΩ
RE48	1	GD05182140	1.8KΩ
Δ RE50	1	GG05471140	470Ω
Δ RE52	1	GG05471140	470Ω
RE54	1	RK05030330	50KΩ(B), Variable
RE56	1	RK02030530	20KΩ(W), Variable
PE02-SEMICONDUCTORS			
QE02	1	HT322401A0	Transistor 2SC2240(GR)
QE04	1	HT109701A0	Transistor 2SA970(GR)
QE06	1	HT108722D0	Transistor 2SA872A(D or E)
QE08	1	HT317752D0	Transistor 2SC1775A(D or E)
QE10	1	HT323202B0	Transistor 2SC2320(E or F)
QE12	1	HT406661C0	Transistor 2SD666(C)
QE14	1	HT206461C0	Transistor 2SB646(C)
PG00-MODE & BALANCE CIRCUIT BOARD			
PG00	1	WK21472770	P.W. Board, Mode & Balance
RG01	1	RM01040300	Variable Resist 100KΩ x 2, Balance
SG01	1	SR04050180	Rotary Switch, Mode
PJ00-VOLUME & LOUDNESS CIRCUIT BOARD			
PJ00	1	WK21471630	P.W. Board, Volume & Loudness
PJ00-CAPACITORS			
CJ01	1	DF15823300	Film 0.082μF ±5%
CJ02	1	DF15823300	Film 0.082μF ±5%
CJ03	1	DF15473300	Film 0.047μF ±5%
CJ04	1	DF15473300	Film 0.047μF ±5%
PJ00-RESISTORS			
RJ01	1	GD05822140	8.2KΩ ±5% ¼W
RJ02	1	GD05822140	8.2KΩ ±5% ¼W
RJ03	1	RM01040350	100KΩ(B) x 2, Variable
PJ00-SWITCHES			
SJ01	1	SS04040040	Slide Switch, Loudness
SJ02	1	SB12470010	Switch Band, FLX
SJ03	1	SC00030010	Switch, Loudness
PS01-INPUT SELECTOR CIRCUIT BOARD			
PS01	1	WK21472710	P.W. Board, Input Selector
PS01-RESISTORS (All Resistors are ±5% and ¼W)			
RS01	1	GD05561140	560Ω
RS02	1	GD05561140	560Ω
RS03	1	GD05221140	220Ω
RS04	1	GD05221140	220Ω
RS05	1	GD05221140	220Ω
RS06	1	GD05221140	220Ω
RS07	1	GD05392140	3.9KΩ
PS01-DIODE			
QS01	1	HD20011050	Diode 1S1555
PS01-MISCELLANEOUS			
JS01	1	YT02040330	Terminal, RCA (4P)
JS02	1	YT02040330	Terminal, RCA (4P)
JS03	1	YT02040330	Terminal, RCA (4P)
JS04	1	YP10001980	Plug (2P)

REF. DESIG.	Q'TY F	PART NO.	DESCRIPTION
JS05	1	YP01001030	Plug (3P)
JS06	1	YP01001030	Plug (3P)
SS01	1	SS08040020	Slide Switch
SS02	1	SB12170010	Switch Band, FLX
SS03	1	SC00030010	Switch, Input Selector
SS11	1	SS04040040	Slide Switch
SS12	1	SB12470010	Switch Band, FLX
SS13	1	SC00030010	Switch, Tape Copy
SS21	1	SS04040040	Slide Switch
SS22	1	SB12470010	Switch Band, FLX
SS23	1	SC00030010	Switch, Tape Monitor
Δ LS01	1	LY20240160	Relay, FRL-644D2412BS
PT00-TONE SWITCH CIRCUIT BOARD			
PT00	1	WK21472750	P.W. Board, Tone Switch
ST01	1	SC04020150	Switch, Tone
PU00-POWER SWITCH CIRCUIT BOARD			
PU00	1	WK21471650	P.W. Board, Power Switch
GU01	1	BF10400030	Cap. Comp. 0.1μF + 120Ω
SU01	1	SP04010230	Push Switch, Power
PV00-PHONO 1, 2 CIRCUIT BOARD			
PV00	1	WK21471660	P.W. Board, Phone 1, 2
JV01	1	YT02040320	Terminal, RCA (4P)
PW00-PRE-OUT CIRCUIT BOARD			
PW00	1	WK21472760	P.W. Board, Pre-Out
JW01	1	YT02040320	Terminal, RCA (4P)
PX00-HEAD PHONE CIRCUIT BOARD			
PX00	1	WK21471640	P.W. Board, Head Phone
JX01	1	YJ01001340	Jack, Head Phone
PY00-POWER L.E.D. CIRCUIT BOARD			
PY00	1	WK21471620	P.W. Board, Power L.E.D.
Δ QY01	1	H110004030	L.E.D. Power

(W01-99)	Assembly and Wiring
(T01-99)	Adjustment
(X01-00)	Correction